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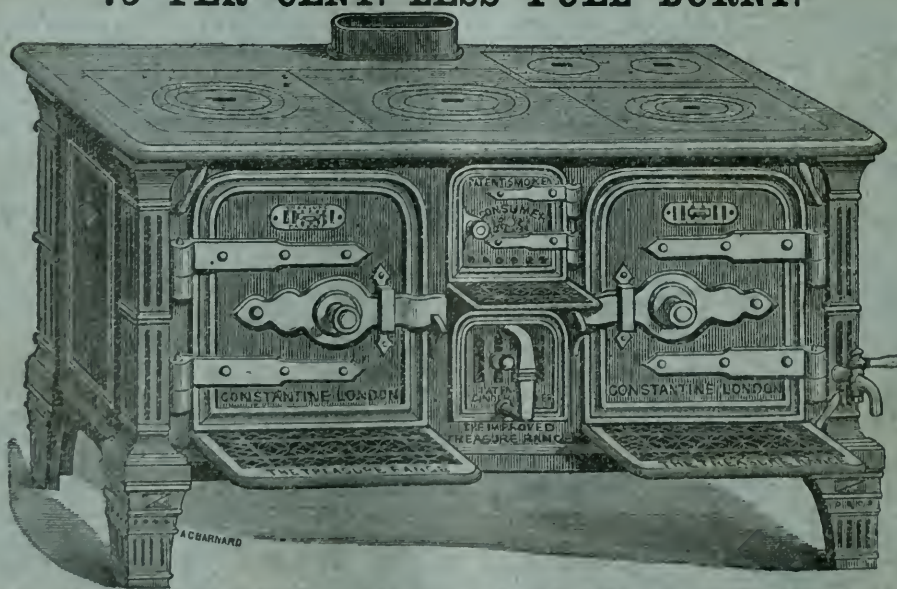

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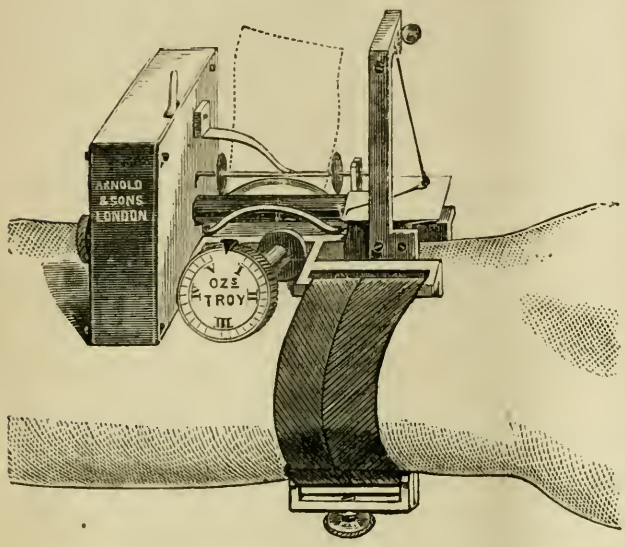

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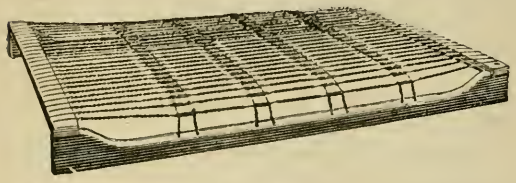

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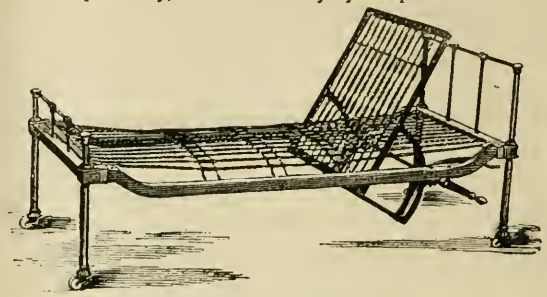

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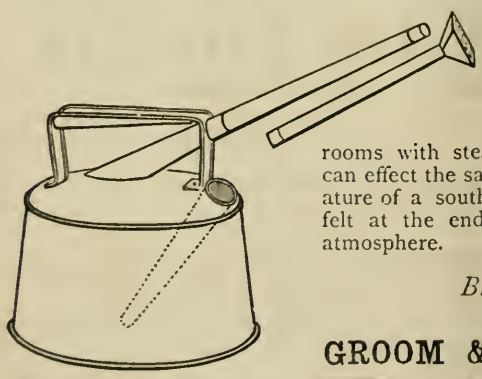

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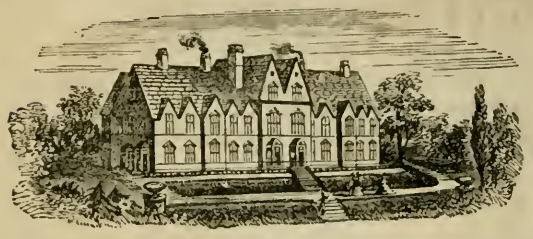

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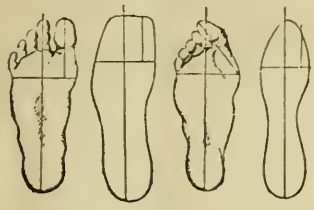
a *b* *a* *b*



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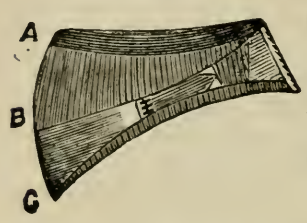

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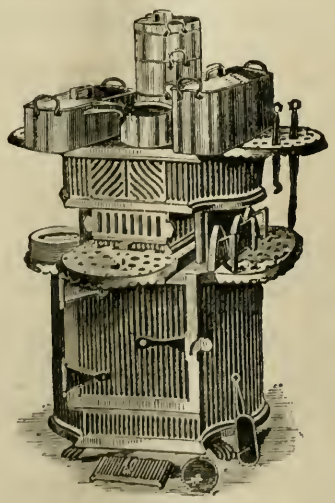

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ROSZAHEGYI ON EXPERIMENTS IN HUNGARY WITH PASTEUR'S INOCULATION FOR SPLENIC FEVER.

PROBABLY no part of the transactions of the recent International Congress in London was of more general interest, both to the medical profession and to the public, than the address by M. Pasteur on inoculation in relation to chicken-cholera and splenic fever. Experiments after his method have been performed on a large scale at the instigation of the Hungarian Ministry of Agriculture, and under the supervision of M. Thuillier, one of M. Pasteur's assistants, who brought with him from Paris the necessary instruments and material. The results of these experiments are given in detail (*Deutsch. Med. Woch.*, No. 2, 1882) by Dr. Roszahegyi, head of the commission appointed to watch them, and they are of considerable interest and importance.

It will be remembered that M. Pasteur found that the bacilli occurring in the blood of animals affected with splenic fever (anthrax, charbon, milzbrand) develop best in flesh infusions at temperatures from 25 deg. to 40 deg. Cent. (77 deg. to 104 deg. Fahr.) At 15 deg. and 45 deg. Cent. (59 deg. and 113 deg. Fahr.), development ceases. In accordance with this, birds, whose body temperature rises to 42 deg. or 43 deg. Cent., are scarcely at all liable to splenic fever. Cultivated at a temperature of 42 deg. to 43 deg. Cent., the bacilli no longer produce spores, but develop into long homogeneous threads; and the longer time they are kept at this temperature, the less virulent they become. While the original blood proved fatal to all the sheep infected with it, the specimens taken from the twelfth day of cultivation killed only half the number of animals infected, and those from the twenty-fourth day did not kill a single one, although all had a slight rise of temperature lasting several days. In cultivations at 42 deg. to 43 deg. Cent., the bacilli remain four to six weeks alive, and capable of inoculation; after that time they die. The process adopted was, therefore, the following. The animals were first inoculated with the twenty-four days' cultivation (premier vaccin), causing a slight rise of temperature, which passes over in twelve days at most. They were then inoculated with the twelve days' cultivation (second vaccin), which again produced a passing rise of temperature, but no fatal cases. Animals that had undergone the 'primary vaccination' were still liable to death if infected with the original blood, but, after the 'secondary vaccination', they possessed an immunity from the full virulence of the poison.

The experiments in Hungary were performed in two series. For the first series of experiments, there were used sixty sheep and ten bullocks (six old and four young), divided into two equal herds. The two herds, consisting each of thirty sheep and five bullocks (three old and two young), were put in precisely similar circumstances, except in one point, and both herds were ultimately subjected to the same 'control experiment' of inoculation with poison of full virulence. The one point in which the herds differed, was that the first herd underwent first the 'primary' and then the 'secondary vaccination' previous to the final 'control inoculation', a period of twelve days elapsing between each inoculation. What, then, were the results of these several inoculations? After the first inoculation with fully weakened material, there died, of the thirty sheep and five bullocks, one sheep, not, however, of splenic fever, but of catarrhal pneumonia, careful experiments being made to prove if there were or were not bacilli in its blood. After the second inoculation, there also died one sheep, probably, but not certainly, of splenic fever. The control inoculation, with the full strength of the poison, was then performed on twenty-five inoculated and twenty-five non-inoculated sheep, five inoculated and five non-inoculated bullocks. For this inoculation there were used anthrax-spores, which had been kept in M. Pasteur's laboratory for five years. What was the result in the two groups of animals? Among the twenty-five inoculated sheep, there was at first no sign of sickness, on the seventh day one sheep died, and on the nineteenth a second. The *post mortem* examinations showed, in the first, great anæmia, with the presence of Distomum hepaticum; in the second, changes in the lungs caused by Strongylus filaria; but in neither was there a trace of splenic fever. Widely different was the result in the case of twenty-five non-inoculated sheep. On the night between the second and third day, there died eight sheep, next night six more, and, in all, there died twenty-three, twenty-two of which (*i.e.*, 88 per cent. of the whole) showed distinct symptoms of splenic fever, although not always a complete assemblage of characteristic symptoms. The twenty-third sheep was highly anæmic, and infested with distoma. Of the bullocks, only the non-inoculated young bullocks showed a slight rise of temperature. The non-inoculated old bullocks, and the inoculated bullocks generally, showed no sign of sickness whatever.

A second series of experiments was performed in three groups. In the first group, among fifty sheep after the 'primary vaccination', no death occurred; after the 'secondary', five died from splenic fever. After the control inoculation of forty-four inoculated sheep, three fell sick of splenic fever and one died of it; but of fifty non-inoculated sheep, under similar conditions with the last, forty-eight died, only two remaining alive. The second group of experiments were performed on a larger herd. Half of these, two hundred and sixty-four in number, were inoculated with the primary and secondary inoculations, and of these ten died, after the second inoculation, of splenic fever, while twelve got abscesses in consequence of the injection. The inoculated and non-inoculated animals were then turned loose into pastures, where splenic fever had usually caused the death of two to three in the herd weekly. It will be watched how the two groups now react to the anthrax contagium. The third group of experiments under this head were performed on twenty bullocks. Of these, fourteen underwent the two inoculations, six did not. Then all twenty were inoculated with the unweakened poison. The 'primary vaccination' produced no effect whatever. After the 'secondary', one animal seemed slightly indisposed. After the 'control inoculation', only one of the fourteen inoculated animals seemed slightly indisposed, while of the six inoculated animals, four fell seriously ill, with high fever, etc., and one of these died.

As will be seen, therefore, from the above, while Pasteur's inoculation is no absolute protection, it is very nearly so. Of sixty-nine inoculated sheep, only

one (*i.e.*, 1.45 per cent.) died after the control inoculation, while, of seventy-five non-inoculated animals, seventy (*i.e.*, 93.3 per cent.) died of splenic fever after the control-inoculation. The most important control-experiment, however, has still to be performed, viz., the observation as to how the inoculated and non-inoculated animals react to the natural contagium when exposed to it. It will also be noted that the mortality from the inoculation itself is not small, about 14.5 per cent.; and, it seems too that other diseases, previously latent, become manifest during the inoculation. Again, another important point is the multiplication of spores in the carcases of those animals dying from the inoculation, which spores, on being scattered, may very readily recover their primitive virulence. The commission concludes, therefore, that the general adoption of Pasteur's method would, as yet, be premature, that the private performance of the protective inoculation should be forbidden, and that further experiments ought to be performed.

Whatever practical results may spring from M. Pasteur's discovery, as physicians we must all be watching, with the utmost interest, the development of that discovery. M. Pasteur will for after-generations hold much the same relation to Jenner, that Sir Isaac Newton does to Kepler. As Newton explained the laws of Kepler by gravitation, so Pasteur has explained for us the invaluable empiric fact discovered by Jenner in vaccination for small-pox. We hardly know which to value most, which to admire most highly. JAMES ANDERSON, M.D.

SIEDAMGROTZKY ON THE EXPERIMENTAL COMMUNICATION OF BOVINE TUPERCULOSIS.

PROFESSOR SIEDAMGROTZKY (*Archiv für Thierheilkunde*, viii. 3, April 1882) details the experiments undertaken by himself, in conjunction with Dr. Birch-Hirschfeld and Professor Haubner, at the instance of the Government of Saxony, in order to decide the question, 'whether, and how far, the consumption of the meat and milk of tuberculous cows is injurious to man.' The inquiry was made at Dresden during the years 1878 and 1879; the report was presented in April 1880, and it has now been made public.

The experiments were made on lambs or young pigs, two species of animals supposed to have the least constitutional tendency to tuberculosis, and absolutely no hereditary predisposition. The lambs or pigs were fed either with the actual tuberculous products of the diseased cow, and with 'miliary tubercles and caseous pneumonia' of man; or with milk from a tuberculous cow. The first pair of lambs were fed for eight days with caseous substance (160 grammes for each), from cavities in a cow's lung, the pleural surface of which was covered with pearly nodules; the caseous substance was made into an emulsion with water, and administered from a bottle. One of the lambs, killed after 269 days, showed no abnormal condition; the other, killed after 117 days, had a thick-walled cavity (with caseous contents), of the size of a walnut, in one lung, together with a few grey and partly calcified nodules, and, in the other lung, certain centres of calcification. The bronchial glands were swollen; and, in the cortex, there were conglomerations of greyish-white translucent nodules. The second pair of lambs were fed eleven times with pearl-nodules from the serous membranes of various cows, each lamb receiving in all 220 grammes. They were killed after 102 and 135 days respectively; in both there were ulcerations and miliary nodules in the small intestine, and nodules or chalky points in the mesenteric glands; the formations in the intestines and in the lymphatic glands had a characteristic tubercular structure (epithelioid cells and giant-cells). The third pair of lambs were fed with tubercular masses from the human lung and intestine; but the animals were found practically healthy when they were killed. Almost equally negative was the experiment of feeding two lambs with tubercles from acute miliary tuberculosis of man. In one of the animals, there were a few calcareous points in the cortex of certain mesenteric glands. Two lambs were used as 'control-animals'. They received no tuberculous substance, and, when they were killed, one of them had a few small white nodules in the mucous membrane of the small intestine, a few calcareous points in the mesenteric glands and in the bronchial glands, and in one lung a few nodules of the size of a pea, completely calcified and encapsuled; while the other had a few calcareous points in the mediastinal lymphatic glands.

The second series of experiments consisted in feeding lambs and pigs with the milk of cows diagnosed to be tuberculous, and proved to be so *post mortem*. Six young pigs and two lambs were fed with the milk for 142 or 153 days. In the two lambs, the liver was the only organ affected; in one of them it contained twelve, and in the other three nodules, whitish, firm, in size from a millet-seed to a pea, conglomerations of smaller tubercles containing epithelium-like cells, and giant-cells with marginal nuclei. Liver-nodules occurred also in all the six pigs, although they were not considered to be tubercles. They were composed mostly of round lymphoid cells. The lymphatic glands of all the six—either the mesenteric, or portal, or bronchial—contained one or more calcareous nodules. The lungs, also, in five out of the six, contained nodules various in size and in number, which were composed of round lymphoid cells, and were suggestive of lymphomatous growths. Three animals (one lamb and two pigs) were used for controlling the second series of experiments, and were fed with ordinary milk. The lamb had no disease except in the liver, where there was a calcified and encapsuled nodule (old cysticercus). Both the pigs had 'lymphomatous' nodules in the lungs, one of them had a few scattered fibrous nodules in the liver, and the other had three leucæmic nodules in the spleen, as large as peas.

The Commission, in reporting to the Saxon government, expressed the formal opinion that their experiments gave 'no positive support' to the notion of tuberculosis communicated to man from the cow; although, in a more unofficial vein, Professor Siedamgrotzky does not ignore the significance of some of the experiments. In the experiments with milk, the tuberculosis was chiefly in the liver. In general, the induced tuberculosis was very moderate in amount and in the area of its distribution. The effects, such as they were, followed after a considerable interval of time, and there were no symptoms due to them, and in no case a fatal result. The risk of infection is not always the same; different animals have different susceptibility. The infective power of the milk probably varies in like manner; it is most likely to be dangerous in those

cases where there are tuberculous formations in the udder. It cannot escape notice that the two pigs that were used to control the milk experiment, and were fed with ordinary milk, had practically the same tubercle-like formations as the six pigs subjected to the experiment itself.

C. Creighton, M.D.

JAFFÉ ON EPIDEMIC CEREBRO-SPINAL MENINGITIS.

The seventeen cases which the author relates (*Deutsches Archiv für Klin. Med.*, Band xxx, Heft 3 and 4, 1882), and which were mostly observed by himself, are not recorded for the purpose of setting up new theories concerning cerebro-spinal meningitis, but are intended to correct many errors which exist in regard to etiology, etc. He, therefore, first gives a summary of cases of like nature and of the results of all observations. The author maintains that the meningitic virus is a specific one, and considers it a waste of time to endeavour to prove its connection with other infectious diseases. It is certain that the disease in question is a specific infectious one, which may occur sporadically as well as epidemically, and may be spread by contagious as well as by miasmatic influence. As we are not yet clear as to the nature of the virus, we must, for the present, consider the two questions, as to the origin of the virus and the etiology of the disease, as unanswered; but, as a fact, we can record that it exists, and, as probable, we may assume that it is less a miasma than a contagium. Whether it be fixed or volatile, whether 'vivum' or otherwise, or if parasitic, we know not as yet. Jaffé has examined, microscopically, the blood and exudations found in the cerebro-spinal cavities, but has found no organisms of any kind. He feels himself justified, therefore, in denying that cerebro-spinal meningitis is a parasitic disease (from a modern point of view).

Prodromal symptoms were found in ten cases. Headache occurred in fourteen, vomiting in fourteen, and delirium in ten cases; of the latter, two were of a maniacal character, and had been admitted as suffering from delirium tremens. Episthotonos occurred sixteen times; hyperæsthesia, eight; anæsthesia, once only; ocular changes, ten times; aural troubles, once, in the form of purulent otitis media, with perforation of the membrana tympani. In two pneumonia, in one bronchitis, and in one gangrene of the lungs occurred. There were two cases of ulcerative endocarditis, complicated once with purulent pericarditis. Splenic swelling was observed thrice, passive albuminuria once, arthritic affections five times.

The duration was two or three days as the minimum, four months as the maximum. Ten cases ended in death, seven in recovery; the mortality being 59 per cent. The diagnosis is most difficult in the early days of the sporadic cases. We have to distinguish between the diseases idiopathic (traumatic) spinal or cerebro-spinal meningitis, tubercular meningitis, typhoid fever, intermittent fever, asthenic pneumonia, tetanus, delirium tremens, and acute mania. The etiology of the first disease is an important aid, but it must be borne in mind that wounded persons are most sensitive to the meningitic virus; it is often impossible to distinguish tubercular meningitis, as two of the reported cases show. Typhoid fever is recognised by the gastric symptoms, which soon appear, and the absence of spinal symptoms, as well as the presence of the splenic tumour; intermittent fever by the beneficial effect of quinine. The other diseases are distinguishable in their further progress.

The treatment consisted in the application of ice to the spine and administration of narcotics, calomel in large doses, luke-warm and cold baths. The author found abstraction of blood, prolonged baths, and the administration of antipyretics to be useless; the latter disturbing the digestive faculties and lowering the patients. F. William Elsner.

GUSSENBAUER ON CANCEROUS INFECTION OF LYMPHATIC GLANDS.

Dr. Gussenbauer publishes, in the *Zeitsch. für Heilk.*, vol. ii, Part 1, March 1881, an elaborate memoir (62 pages, with four double and one single coloured plates of microscopic drawings) on the secondary infection of lymphatic glands from primary tumours. His collection of specimens, made during a long period, numbered over 200. Of these, 192 were cases of infection of the lymphatic glands from cancers, chiefly of the skin (including lip) and breast, and of other epithelial regions accessible to the surgeon, while 13 were of cases infected from primary sarcomatous tumours, 9 melanotic and 4 white. The glands, being obtained fresh from the operation, were preserved under the most favourable circumstances. Many small and, to the naked eye, apparently unaffected glands were removed, and their examination has been instructive both for clinical prognosis and for pathology. The paper is divided into a clinical and a histological part.

1. *Clinical Experiences of Cancerous Infection of Lymphatic Glands.*—In those cases where the lymphatic glands belonging to the cancerous region do not appear to be enlarged even on the most minute examination, are they still really intact, or are they probably diseased? There is no fixed standard of size for healthy or for non-cancerous lymphatic glands. They vary in size according to the individual, according to his time of life, his occupation, and the previous occurrence of disease or injury in the part whence the lymph comes to the glands. Working people are apt to have the axillary and inguinal glands of relatively great size, and in the axilla there may be marked differences on the two sides. Very small lymphatic glands often occur, which cannot be detected under the skin until they begin to be infected, and whose presence may not even be suspected. The author describes one such as occurring in the middle line of the neck, over the conoid portion of the crico-thyroid membrane. There is no difficulty in diagnosing infection of lymphatic glands in the usual case of a tumour brought for operation, when it is well grown. But it is different in cases where the primary new growth is seen early. Thus, in six cases of cancer of the breast (five of scirrhus, one of adenoma), where the nodules were very small, no enlargement could be found in the axillary glands. But the latter were removed, and in every case more or less cancerous infection was found in them. Even increased size and induration are not conclusive for the cancerous infection of glands in the axilla in women. Various previous excitations may have led to enlargement and persisting hardness. Only the microscopic test is infallible. The author is convinced that all cases of primary cancer of the breast are followed sooner or later by infected axillary glands. His experience in cases of cancer of the lip

is much more extensive, and altogether conclusive for that region. Cancers of the lip are apt to infect the submaxillary glands much oftener than is usually supposed, and the infection takes place at a particular spot easily found. A triangular space, bounded behind by the facial artery, above by the border and under surface of the jaw, and in front and below by the upper border of the submaxillary gland, is exposed, and the platysma divided at a point about one-third of an inch under the jaw. Through the aperture so made, two, and sometimes three, lymphatic glands may be extracted, of unequal size, and affected in various degrees, the first encountered lying close on the tortuous facial artery, and requiring care in its removal. The author has repeatedly removed from that space lymphatic glands scarcely larger than a hemp seed, and not indurated, but still showing, on microscopic examination, distinct cancerous infection. In 32 cases of cancer of the lower lip operated on from six months to two years after the beginning of the disease, these lymphatic glands were found diseased in all but three. Like the primary disease, that in the glands may be either slow or it may be rapid. In lip cases it is slow. In epithelial cancers of other parts of the face than the lip, infection of the lymphatic glands is exceptional. Out of 48 such cases, secondary lymphatic infection was found in 1 only (cancer of the skin of the forehead infecting on each side superficial facial glands over the parotid). The author further gives his experience of the infection of lymphatic glands of other regions (mouth, larynx, testis, penis, uterus, rectum, skin of the extremities). The important question, how soon the lymphatic glands become infected, must remain unanswered. Only a mere fraction of the cases present themselves for operation within a short time (two or three months) of the beginning of the tumour.

2. *Histological Investigation.*—The extension of cancerous or sarcomatous disease from a primary tumour to the regional lymphatic glands is capable of being explained (1) on the theory of a transport of actual fragments of the primary growth, which multiply in the gland, displacing the proper tissue, and causing it to atrophy; or (2) on the theory that the tissues of the lymphatic gland are transformed by infection into a structure resembling that of the primary tumour. The author points out that the former theory is not based on facts, but is merely an extension to pathology of the doctrine of the continuity of the embryological three layers. His own observations (following an earlier paper in 1872) are entirely in favour of the latter theory. He first inquires into a not unusual appearance that may seem to bear out the transplantation theory, viz., that of linear cords of new growth extending between the tumour and the lymphatic glands. It is true that the lumen of these cords (lymphatic vessels) contains cells other than lymph-cells. But if the epithelium of the vessel be examined, it will be found to be in a state of active proliferation. The cells so produced acquire the characters of the cells of the primary tumour; but the free cells in the lumen want those characters, and are, in fact, young or indifferent cells, which have presumably grown from the epithelium also. The cord-like new growth is, therefore, not due to plugging of the lymphatic vessel by cells detached from the primary tumour, but to proliferation and transformation of the epithelium all along the lymphatic vessel by continuous extension of infection. In this conclusion, as well as in certain other points, the author is mainly in agreement with Hoggan (*Path. Trans.*, vol. 30). In the lymphatic gland itself, he does not find that the afferent vessels at their points of entrance, nor the peripheral lymph-sinuses, are occupied with transported cells or with the beginnings of the new growth. On the contrary, the first changes are, generally speaking, in the follicular tissue, and not even in the tissue of the cortical follicles specially. A certain kind of corpuscular elements are indeed found in the first stages of the invasion, which have probably been carried by the lymph-stream from the primary tumour. They are very minute spherules, which, in the case of melanotic sarcoma, carry with them the melanotic character of the primary growth. These, he thinks, are of the nature of fertilising germs. They do not themselves grow up into the elements of the new formation, but they infect the constituent elements of the lymphatic gland in such a way, that these latter transform themselves into the likeness of tumour cells. The doctrine of a *seminium*, he points out, is not new; but no one has hitherto professed to identify the seminal particles. Except in the case of melanotic growths, he has been unable, after much effort, to find among the spherules forms that might be reckoned characteristic of the several patterns of tumour structure. They varied in size and refractive power, but these variations would occur side by side in the same preparation. They are very minute rounded pale granules, colouring very little with reagents, distinguishable from fat-granules, and disseminated all through the tissues of the gland (except the trabeculæ), either free or within the protoplasm and even the nuclei of cells. The author's method of proof is to show the stages of transition from the normal elements of the gland towards the perfect form of the tumour-elements. Those stages may sometimes be seen in continuous order in the same section, and especially well in epitheliomatous growths, where, under picro-carmine staining, the cells take up less of the carmine as they approach more to the character of flat epithelial cells, and finally take on only the yellow colouring of epidermis. The most complex transformation of lymphatic gland-tissue described in this paper is into spaces lined by regular rows of columnar epithelial cells, and containing colloid substance, the primary tumour being a cancer of the rectum with that particular structure. The spaces lined with epithelium (representing sections of glandular tubes) are traced back through several stages, and are ultimately identified as the channels of blood-vessels (ramifying in the follicular tissue), whose epithelium and whose muscular and other elements take on active proliferation, and eventually the distinctive form and arrangement of the cells lining a glandular tube. The participation of the various coats of the blood-vessels in the formation of the secondary new growth is a prominent subject of the illustrations accompanying the paper.

LANNELONGUE ON COLD ABSCESSES AND TUBERCULOSIS OF BONE.

DR. LANNELONGUE writes as follows in the introduction to his recently published volume.* A cold abscess is a tuberculous swelling from the beginning. In the second place, tuberculous affection of the bones is almost always complicated with suppuration. These suppurations are cold abscesses. He then gives his

* *Abcès froids et Tubercule Osseuse.* Par le Dr. Lannelongue, chirurgien de l'Hôpital Trousseau, agrégé de la Faculté de Médecine. Paris, A. Selm. 1881.

reasons for the association of cold abscess with tuberculosis of bone. He shows that tuberculosis of bone owes its true situation in nosology to Nélaton. Tuberculosis of bone was, however, recognised in respect to the vertebral column only; and if tubercles were not found in the lung, the lesion of the vertebræ was at once supposed to be of a different nature.

It is by careful study of the suppurations known under the name of cold abscesses, that the author has been able to refer them to tuberculosis of bones, and to recognise that this tuberculosis may exist in other situations than in the vertebræ. Dr. Lannelongue's book is divided into three parts. The first part treats of cold abscess, properly so called, or tuberculous abscess. For a long time cold abscesses have been distinguished from warm abscesses. The primary tumour of the cold abscess is a tuberculous new formation. In the first stage, the tumour becomes softened and liquefied; in the second, it forms a peripheral membrane, which limits the products of this softening, and which contains tuberculous nodules. Of the two surfaces of this membrane, the internal is frequently unequal, rough, disorganised, and swollen. Its colour is grey or dark red; in cases of congestion, discoloured or yellow. This last shade of colour is due to caseous deposits. All these various aspects are connected with the age of the elements and their modifications. The cavity may be simple or multilocular. The external surface, examined in the living subject before the extirpation or destruction of the cold abscess, is smooth, uniform, and of a greyish colour. In cases when the sac is in process of evolution, continuity with the neighbouring tissues is noted; vascular attachments unite the sac with the adjacent tissues. In a more advanced stage, the sac throws out conoid prolongations into the neighbouring tissues; the periosteum and the aponeuroses appear covered with small threads after the extirpation of the abscess.

The evolution of cold abscess may be traced from the origin, usually in the same patient. Along with the old abscess there are small hard tumours about to become softened. These are the gummata of the St. Louis school, which MM. Brissaud and Josias have recognised as being of tuberculous nature. They are then superficial; there are deeper ones, which escape a superficial examination. These are the true crude tubercles of Laënnec. When the tumour is softened, the abscess is formed. In other cases, these tubercles undergo resolution. Cold abscesses may remain small for a long time, and then increase considerably. The increase is constituted by a true propagation; on the one hand the neighbouring tissues are invaded by a new formation of embryonic tissue; on the other, the original parts of the wall become dissolved and fall into the cavity of the abscess. The contents of the abscesses do not show great resemblance to pus, except on a superficial examination. The pus of cold abscesses is more serous; it contains yellowish white flocculent particles, dark clots, and red blood-corpuscles. Sometimes the contents are oily, transparent (in old abscess) or serous. The liquid contains fewer leucocytes, is richer in granular matter, in fatty bodies, in crystals, in concreted fibrine, and in the remains of cells.

Dr. Lannelongue afterwards describes the symptoms of cold abscess. It is preceded by a small deeply seated or superficial tumour, hidden in the areolar tissue. There may be three, four, ten or twelve of these small tumours on a single person, in various stages of development. After remaining stationary for a time, the small tumours, which are about the size of a pea, increase, and a diffused glutinous deposit is formed around them, varying in size from a hazel-nut to a walnut. At that time there is fluctuation. When the primary nucleus does not increase, it becomes softened towards the centre, and fluctuates, and tuberculous abscess is formed.

The writer afterwards refers to intermittent cold abscess, due to persistence of the wall, when the fluid is subject to absorption and successive reproduction. Cold abscess may terminate by resolution, absorption of the contents, and disappearance of the sac. When these abscesses have disappeared, the skin shows red or violet spots, depressed or cupped. If resolution of the abscess do not occur, it ulcerates. Ulceration may be either restricted or extensive. When the source of the pus is dried, the sac being destroyed either spontaneously or by a surgical operation, the abscess becomes cicatrised: the cicatrix is depressed, puckered and flattened. As a rule, tuberculous abscesses are cured.

The abscess may become cystic; the tumour ceases to grow, and the liquid becomes more fluid and less viscous; it is transparent. The abscess may be caseous and have solid contents; these caseous masses are stratified, very hard, and originate in the wall itself; there is no fluctuation. The transformation is observed rather in simple tubercular abscess than in abscesses of bone.

The evolution of cold abscess is effected without appreciable reaction. M. Lannelongue has made experiments on the local and the general temperature in subjects attacked by cold abscesses. He has taken every possible precaution, and this is the result. The general temperature is augmented by a few tenths of a degree Cent.; the local temperature is increased by two, three, four, and five tenths of a degree.

With regard to the treatment in cases of ordinary cold abscess, it must be opened as soon as fluctuation is observed, the internal surface must be modified by local applications or injections, and Lister's dressings applied. M. Lannelongue describes an operative proceeding for dissecting and removing the sac of the abscess. He applies Esmarch's bandage, opens the cavity, and removes the wall; he does not endeavour to obtain immediate union, which would be attended by some inconvenience. Sessile cold abscesses of bone are treated in the same way; only in these cases a new factor, the bone, must be taken into account. The bone must be rasped or resected. In abscess by congestion, it is not possible to destroy the wall, and to act upon the bone; but the abscess must be opened so soon as it appears in an accessible surgical region. If it be symptomatic of lesion of a bone or a limb, the treatment employed in sessile abscesses of bone must be used. If the joint be attacked, it is frequently necessary to have recourse to resection; if the abscesses arise from lesion of the vertebræ, of the ribs, or of the sacrum, Lister's dressing must be used. The sac is incised, a drainage-tube is introduced, and a strong carbolised solution is injected. The reaction lasts some days, and a fistulous passage generally remains.

The second part treats of tuberculous abscess appearing in the course of chronic affections of bones. Tubercle is a secondary manifestation of a

constitutional condition: this explains the appearance in a neighbouring or distant organ of multiple products, without apparent anatomical connection with the primary tumour. In spina ventosa, a primary tuberculous affection of the phalanges, there is frequently suppuration in the neighbouring parts. When it proceeds from the bone attacked, the suppuration is symptomatic; at other times the abscesses are independent; these are tuberculous foci, gummata, or large tuberculous abscesses. Inoculation of tuberculous matter is a great argument in favour of this hypothesis; and the multiplication of the abscesses shows the influence of diathesis. M. Lannelongue gives the name of concomitant to those abscesses which become developed during the course of an affection of bone, without having any anatomical relations with the lesion of the bone. Anatomically, these abscesses are constituted like simple tubercular abscess. In addition, tuberculous nodules are found in the concomitant abscess, and in the abscess by congestion. The conclusion is, therefore, arrived at that the bony affection, the cause of the congestive abscess, is primarily tuberculous. Tuberculosis of the lung and brain also often supervenes during the course of the affection of the bone.

In the third part, the author studies tuberculosis of bone. Dr. Lannelongue lays down the principle that the osseous affections having a chronic course with which patients are affected, who present distant concomitant tuberculosis, are originally of the same nature as these abscesses. The lesions only remain for a certain time confined to the tissue of the bone; they spread from it and invade the neighbouring soft parts.

Arthritis supervenes suddenly or slowly, from congestion of the synovial membrane. When arthritis is sudden and acute, it is due to the effusion of pus, of tuberculous matter, or of sequestra into the joint. The encrusting cartilage has then been destroyed. As a general rule, fungous transformation of the articulation takes place slowly, and may for a long time remain partial. When the osseous lesion spreads to the surrounding tissues, there is congestion constituted by vascular fungosities which traverse the periosteum, and become developed on the external surface in the neighbouring tissues. The fungosities may be very extensive, without there being any abscess. They destroy the soft parts as they have destroyed the bone; it is a continuation of the same process; a membrane forms around these external foci, and the abscess is formed.

The presence of isolated or agglomerated tuberculous granulations is the only characteristic of tuberculosis of bone. But these tubercles may, continuing their evolution, disappear, or become transformed so as to mislead in the recognition of the tuberculous affection. Ranvier has shown that tuberculous granulations are frequent in the bones of phthisical patients, especially in the bones with red marrow.

Regarded in an isolated fashion, and with the naked eye, these granulations form a small ovoid spot from half to one millimètre in diameter, translucent, and with an opaque centre. They are either disseminated or agglomerated. The marrow, the periosteum, the bony tissue, and the neighbouring cartilages are the seat of concomitant changes. Rarefying osteitis is present, the bones become ulcerated, cavities containing sequestra are formed, perforations and osseous fistulæ occur.

These cavities are tuberculous caverns, and do not always contain sequestra. Later on, osteoperiostitis occurs, which results in the formation of new bone around the old. This new bone may be more or less thick, and is sometimes scarcely apparent; at other times, the forms of the extremities of the bone are sensibly modified. The consequences of these anatomical changes are easily understood. The relations of the bone to the neighbouring bones are changed; the physiological play of the joint is disturbed, and the body assumes vicious positions. The changes of form in the flat bones are more limited and less visible.

GASKELL ON THE RHYTHM OF THE HEART OF THE FROG AND ON THE NATURE OF THE ACTION OF THE VAGUS NERVES.

THIS paper (*Proc. Royal Soc.*, Dec. 1881) is divided into two parts: Part I, on the rhythm of the heart; Part II, on the action of the vagus nerve.

The conclusions arrived at in Part I are summed up in the following propositions. 1. The rhythm of the heart is caused by discrete motor impulses, passing to the muscular tissue from certain motor ganglia. 2. In order that each one of these impulses may produce a contraction of the ventricle, a relation must exist between the strength of the impulse and the excitability of the ventricular muscle. 3. When each impulse is inefficient to cause a contraction of the ventricle, the ventricular muscle has the power of summing up the effects of two or more of these inefficient impulses, and so continues to beat rhythmically, though no longer synchronously with every impulse. 4. The most satisfactory explanation of this summation process is as follows. Every impulse which is inefficient to produce a muscular contraction increases the excitability of the muscle, and, therefore, makes it easier for a second impulse to cause a contraction. 5. The impulses can be made inefficient to produce contractions synchronous with them by lowering sufficiently the excitability of the ventricle, as is seen in the action of poisons, even although the rate and strength of the impulses remain unaltered. 6. The impulses can also be made inefficient when the excitability of the muscle is unchanged by diminishing the strength of the impulses, as is seen in the effects of compressing the tissue between the ventricle and the motor ganglia, or of heating the auricles and sinus without heating the ventricle. 7. There is a limit to the extent to which a series of inefficient impulses can raise the excitability of the muscle, so that the ventricle can remain absolutely quiescent, even although the impulses still pass to it, when those impulses are sufficiently weakened.

In Part II, it is shown that stimulation of the vagus produces a marked effect upon the force of contractions, both of auricle and ventricle, independent of any alteration of rhythm. The author classifies the vagus heart-curves under the three following types, between which every conceivable variation can occur. 1. Complete quiescence of both ventricle and auricles, followed by contractions, which at first are scarcely visible, but which rapidly increase in size, until at the maximum they are much greater than before the stimulation of the nerve. From this maximum they very gradually decrease, until the original size of contraction is again reached. 2. During the stimulation, no quiescence of either

ventricles or auricle, but simply a diminution of the contractions, followed by a rapid and marked augmentation of the contractions beyond the original height, and then a slow gradual diminution to the size obtaining before the nerve was stimulated. 3. No primary diminution, but from the commencement of the stimulation the beats increase in size, and, after a time, gradually return to the original size. The author concludes that the effects of the vagus depend on the trophic condition of the heart, and that stimulation of the vagus may, according to that condition, have either of two opposite effects on the muscular tissue: 1. Diminishing its excitability and lowering its tonicity, when it reduces the force of ventricular contraction; 2. Increasing its excitability and possibly its tonicity, when it increases the contraction force. He suggests that formative processes are going on in the muscular tissue and in the motor ganglia of the heart, and that the vagus produces all its effects by increasing the activity of these processes. A. WALLER, M.D.

IRYZ ON THE 'SPOTTED SICKNESS' OF CENTRAL AMERICA.

IN an interesting memoir lately presented to the Academy of Medicine of Mexico, Dr. Iryz calls attention to a hitherto undescribed and very remarkable malady which would appear to be endemic in certain regions of Mexico and Central America. The author speaks of it in the vernacular as the 'spotted' or 'painted' sickness, the Mal de Pinto or Tina. In the absence of a more scientific nomenclature, these names may perhaps be accepted at least provisionally. The malady in question has not as yet been described in any of the standard works on medicine. In Littrè and Robin's edition of Nysten's *Dictionary*, there is possibly a vague reference to it under the name of *carate*; but the authors, even if they intended to describe this affection, evidently knew nothing about it. Remarkable as it is, when seen for the first time, it nevertheless escaped the notice of such a keen observer as Baron Humboldt, who, in his *Account of New Spain*, makes no mention of having met with any disease at all similar in character to *mal de pinto*, as described by Dr. Iryz. This, however, is easily explained by the fact that the disease begins most insidiously, escaping for a considerable time the notice of even the sufferer himself. In its less severe forms it may also be readily mistaken for certain skin-diseases, which have nothing peculiarly striking about them.

The genuine 'spotted sickness' is probably not met with anywhere out of Central America and Southern Mexico. The earliest symptom connected with it is the appearance of a patch of discoloration on any portion of the general integument. This is accompanied by slight desquamation of the skin of the part affected, and by a good deal of irritation and itchiness. From this first centre, so to speak, it may radiate in all directions, though as a rule it follows that in which the desquamation extends. Sometimes the eruption is discrete, sometimes confluent, and as a rule unsymmetrical. The affection is accompanied by a peculiar and characteristic odour, which has been compared to that of mouldy garments. The general health is little affected by the presence of the malady, nor is it accompanied at any stage by constitutional disturbance. Sleep, however, is sometimes interfered with by the itching, which is always worse at night.

The affection appears under four distinct varieties, viz., the black, the blue, the red, and the white. In the former two the pathological process is apparently situated superficially to the dermis, in the latter two the dermis and rete mucosum are involved. Hence, from its anatomical characters, a general grouping of all cases may be made into epidermic and subepidermic. In the former, the eruption appears indiscriminately on all parts of the body, such as the scalp, eyelids, neck, trunk, and limbs, but never on the soles of the hands or feet. The patches of colour, which are black or dull blue, are, as a rule, circumscribed, and slightly elevated above the surrounding healthy skin. At first the affected surfaces are rough and dry, but at a later stage they become moist and gummy. There are no signs of inflammatory action, and pressure causes neither pain nor change of colour. When the process of desquamation has reached its extreme limits, the epidermis often appears as if divided into squares of different colours, like a mosaic pavement. The affection may be limited to various patches of discoloration, or may extend over the whole body in an uniform manner. In this latter case the patches are generally black, and give to the patient the appearance of a negro with an Indian or Caucasian type of face. Later on, tubercles of the size of a small nut may be developed on the integument.

In the blue variety, the colour is very similar to that caused by grains of gunpowder under the skin. It may be associated with black patches, and also later on with other discolorations. No portion of skin is, however, attacked by two consecutive discolorations. The eruption in each case confines itself to hitherto healthy integument.

The subepidermic (white, red, or coloured) variety appears under the form of patches of a pale white colour, like cicatricial tissue, or a rose or dark red. In the case of the white they are generally bordered by a dark ring, as if the colour had passed from the centre to the circumference. When touched, these patches convey a different sensation from the neighbouring healthy skin, being generally rough and dry. The affected skin is hard and apparently condensed, and has lost in great part sensation, while its capillaries also appear to have undergone diminution. Itching is a constant phenomenon, but desquamation is less abundant than in the black or blue varieties. The patches spread from the centres towards the periphery, sometimes slowly, but generally with considerable rapidity. They are, as a rule, uniform in colour, but occasionally present islets of pigment in their interior, as if this material had in some places resisted destruction. The affection may spread either from one patch or from several centres distinct in colour, which subsequently, becoming more or less confluent, impart to the whole body, or to a limb, a variety of tints. The author mentions one case in which both legs were thus attacked. When compared together, they seemed to belong to two different individuals. The white or leucodermatous variety may, like the black, invade various portions of the limbs and trunk, but it has a distinct predilection for the neighbourhood of the joints. All these varieties of colour may be occasionally found united in the same individual. They impart to his features a strange and peculiarly repugnant aspect, which, in conjunction with the specific and disagreeable odour of the disease, sufficiently accounts for the disgust and dread it excites in those communities in which it is endemic.

The *mal de pinto* may commence in a portion of

integument which has hitherto been perfectly sound; it more usually, however, follows some general eruption such, as erythema, herpes, or eczema. Its course is essentially chronic. Sometimes one patch will remain without spreading for months, or even years. This is frequently observed to be the case with the white and coloured varieties. The black and blue forms, on the contrary, tend to spread much more quickly and extensively. They comparatively seldom, however, actually cover the whole body, there being, as a rule, some portions of healthy skin left amid the general destruction. One case, however, the author describes, in which complete *albinism* had been produced. The head, neck, thorax, and limbs, and even the hair, were as white as if they had been powdered over with flour. The disease is contagious, but never congenital. If treatment be withheld, it will continue during a lifetime. Sometimes, but not till it has apparently run its course, it loses its contagious properties, and although the skin remains permanently altered, desquamation and itching ceases.

The diagnosis is easy or the reverse, according to the appearance which the skin presents. When the affection has become generalised over the whole body, and when patches of two or three different colours are present, there can be no difficulty in recognising it. It is sufficient to see such a case to at once name it. No other known skin-disease gives a similarly characteristic appearance. The whole integument of the body is covered with black or blue patches, interspersed with others of a dirty white, more marked on one side than on the other. With this pigmentation there also exist furfuraceous desquamation, a specific and characteristic odour, and a peculiar roughness to the touch, all which are present in well marked cases.

When, however, a case is seen in its earliest stage, the characteristic play of colours is absent, and then the diagnosis becomes more difficult. The patches in the 'black form' may simulate Addison's disease. They are, however, darker and better defined than is usually the case in the latter affection. They are, moreover, rough to the touch, and accompanied with pruritus and desquamation, while all constitutional symptoms are absent. From ordinary chloasma, *mal de pinto* may be distinguished by the possession of the above features, and also by its tendency to progress. From pityriasis nigra it may be diagnosed by its deeper and more uniform tint, and also by the presence of tubercles more or less well developed. The 'blue' variety might possibly be mistaken for gunpowder-marks under the skin, but the history of the case will at once remove this source of error.

The 'white' form of the disease, especially at its earliest stage, is sometimes difficult to distinguish from vitiligo. Both affections show equally dull or brilliant white patches, more or less circular, level with the neighbouring skin, and encircled by a line of desquamation. In the *mal de pinto*, however, the pallor is, as a rule, much more marked than in vitiligo. Neither heat nor cold, blisters, cauterisation, or bruising, can in the former alter even momentarily the peculiar whiteness of the skin, in which the capillaries have apparently been completely destroyed.

The distinctive characteristics of the *mal de pinto* may be stated generally to be abnormal pigmentation, itching, and desquamation, a characteristic odour, a peculiar sensation on touch, and in the white or coloured forms a certain brilliancy of aspect.

The disease is not dangerous to life, and in fact causes little disturbance of any kind. It is, however, very fatal to personal beauty, inasmuch as the pigmentation of the skin is generally permanent. If left to itself, the *mal de pinto* will generally invade the whole body, though it may sometimes stop short of this, and apparently undergo spontaneous cure. With appropriate treatment, all forms of the disease are curable, except the 'white,' especially in its later stages. Treatment consists, in the main, attention to hygienic requirements, and the administration of large doses of arsenic. LITTON FORBES.

GRANCHER ON THE PROGNOSTIC IMPORTANCE OF TYMPANITIC RESONANCE OF THE INFRACLAVICULAR REGION IN PLEURITIC EFFUSION.

M. GRANCHER (*Gaz. Méd.*, 1882, Nos. 3 and 4) has set himself the task of determining the prognostic importance of this sign. Without regarding the difference of intensity or tone of the tympanitic note, he only lays stress upon the other physical signs which may be found by auscultation and palpation to accompany it.

Three conditions are possible. 1. The tympanitic resonance may be accompanied by harsher breathing and increased tactile vibration; 2, by increased tactile vibration and diminished respiration; and 3, by diminution of both respiration and tactile vibration. Each of these conditions represents a special physical state of the lung, upon which, again, the subsequent course of the pleurisy very frequently depends. In the first of these conditions, that of increased respiratory murmur and fremitus, it is assumed that the lung-tissue is intact, and, although compressed, plays only a passive part in the pleuritic process. In such a case, the most favourable prognosis may be given. Of five cases observed, three, with pleuritic effusion, recovered completely; and two—pneumonic and cardiac with hydrothorax, respectively—ended fatally. To this combination of symptoms he gives the name of 'supplementary tympanism', and states further that every increase in the respiratory murmur is, in such cases, accompanied by a corresponding increase of the tactile vibration and of the tympanitic resonance.

The second combination—increased tactile vibration with diminished respiratory murmur and the tympanitic percussion note—is the most frequent, and occurs in cases of tubercle which appear masked by pleuritic effusion. This he calls 'congestive tympanism'.

The third combination—tympanitic resonance with diminished respiratory murmur and fremitus—occurs when the root of the lung or the bronchi of the upper lobe are compressed and also in hydrothorax and œdema of the lung. A case of mediastinitis successfully diagnosed by this means, is recorded. This variety is entitled 'tympanism of compression'.

To sum up, therefore, the results of M. Grancher's paper, it would appear that, by means of his combined symptoms, we have, especially in cases of pleuritic effusion, a method of determining the healthy or unhealthy condition of the upper lobe of the lung, in the presence of tympanitic resonance of the infraclavicular region.

E. CLIFFORD BEALE, M.B.

SCHEDE, KÜSTER, AND MUNDY ON POISONING BY IODOFORM.

In response to Professor König's appeal to his colleagues, that they should publish the results of their experience with iodoform, Schede of Hamburg, in the *Centralb.für Chir.*, No. 3, 1882, relates some of the ill effects he has observed following the use of iodoform in the Hamburg Hospital, and also points out some contra-indications to its external application (*Deutsche Med. Zeit.*, Feb. 2, 1882). He gives, however, no exact account of the quantity used in dressing large and small wounds, so that his results do not in any way contradict those of many conscientious observers who have not seen these bad effects following cautious administration. He says that there are persons who possess a peculiar idiosyncrasy towards iodoform, which is not to be found out until, without any warning, it suddenly appears in the most severe symptoms of poisoning, and may lead to the rapid death of the patient, even though the administration be immediately suspended. These symptoms he divides into six groups. 1. There may be elevation of temperature to 104 Fahr., and more, without other phenomena (so-called 'aseptic fever'. 2. In addition to fever, there may be depression of spirits, headache, loss of appetite, taste of iodoform in the mouth, the pulse being often very rapid, while at the same time it is small and compressible. On stopping the drug, these symptoms at once disappear. 3. The pulse-rate may be increased to 150 or 180, and more. In spite of rapid cardiac action and small pulse, with anxiety, etc., amelioration may take place in this condition on stopping the drug; but there is, nevertheless, great danger. This condition may arise after the first application of an iodoform dressing, or it may only set in after toleration has been established for weeks. 4. The alarming rapidity of the pulse is accompanied by high fever, yet the sensibility is not diminished, and no symptoms of septicæmia arise, but the suspension of administration is not followed by reaction, and death follows. 5. After severe operations, although the pulse is very good, rapid collapse sets in, ending in death. It is, however, a question whether this is solely due to the iodoform. 6. The most alarming and, by the relative frequency of their occurrence, as well as suddenness, most dangerous forms of poisoning, are the disturbances of the cerebral functions, which either take the form of acute meningitis, or of a psychological disease (melancholia, etc.), and lead to a fatal termination, even though no elevation of temperature of a particular kind take place, and the application of the drug has been immediately suspended. Schede says that large fresh wounds should not be filled with iodoform, as it becomes impacted in the open tissue-spaces, so that it can only be removed with the spontaneous separation of the scab. Even smaller wounds do not offer security against absorption, although there is less danger in granulating surfaces. Dressing with the iodoform-gauze, as well as the use of the gelatine points, in uterine diseases, he declares to be more safe; but there is no protection against erysipelas in iodoform.

Küster, in a recent paper (*Berl. Klin. Woch.*, No. 14, 1882), lauds the application of iodoform in powder to open wounds, but relates several cases of fatal intoxication, in which the symptoms were much the same as those described by Schede, viz., 1. disturbances of the digestive tract; 2. fever; 3. a peculiar influence on the central nervous system, characterised by depression, melancholia, dilatation of the pupils, apathy, uncleanliness (involuntary motions and urination), hallucinations, etc.; 4. rapid collapse and death. He also comes to the conclusion that it offers no protection against erysipelas; and he has found it to act as a foreign body, and to produce a peculiar phlegmon, in spite of which the wound preserves its thoroughly aseptic character. Independently of these drawbacks, he has, however, obtained astonishing successes with iodoform in checking decomposition, and in the treatment of tubercular diseases, against which carbolic acid was powerless; and he is of the decided opinion that resections are now much more successful in his clinic than formerly. Under these circumstances, great caution is necessary, however, and an indiscriminate use of this antiseptic is to be strenuously deprecated.

In the same number of the *Berl. Klin. Woch.*, Dr. J. H. Mundy of Vienna most energetically advocates the use of iodoform as a first dressing on the battle-field, it being, in his opinion, the safest and most reliable, as the application of Listerian dressing is impossible, and he has not seen it successful in his extended experience of military surgery. It requires no water to make solutions, nor clean vessels, and, if supplied to surgeons and assistants in suitable cases for carrying about the person, can be immediately applied in the first and second lines, where vessels and water are scarce, and there is no time for circumstantial dressing. He believes that the fatal cases were the result of putting too much iodoform into the wound (80 to 300 grammes at once!), and points out that many of the patients who died were anæmic, either very young or very old, subjects of old-standing suppuration, etc., and that on minutely examining the cases of Mikulicz, Schede, König, Hoeftmann, and Czerny, it is found that many of the patients suffered from organic disturbances, only revealed *post mortem*, and which may have been the cause of death just as much as the iodoform. In others, the account of the *post mortem* examination is either not given, or only so vaguely as to leave it impossible to draw any conclusion therefrom. In applying the dressing, Mundy recommends that only a small quantity of the powder be dusted into the wound, that it be only removed when absolutely necessary, and that tight sutures and bandages be not applied, as it is by these and by the constant removal of the dressing to uselessly wash and reapply iodoform that its rapid absorption is promoted. He believes that in iodoform we have now obtained the only possible antiseptic dressing for the first lines, hitherto out of the question. That it is necessary to exercise great caution in using a drug containing 96 per cent. of nascent iodine is, in his opinion, a matter of course; but do not carbolic acid and salicylic acid—in fact, nearly every antiseptic or drug—induce evil effects when recklessly applied or administered? Lastly, he advises that every military surgeon should be supplied with a belt and leather box, in which to carry a supply of iodoform in perforated tins, so that an immediate and handy means of applying antiseptic dressing could be in his power, wherever situated.

F. William Elsner.

CROTHERS ON THE TRANCE STATE OF INEBRIETY: ITS MEDICO-LEGAL RELATIONS.

DR. T. D. CROTHERS, superintendent of an institution for the special treatment of inebriates and opium cases, at Hartford, Connecticut, has recently read before the New York Medico-Legal Society, an important paper on 'The Trance State of Inebriety: its Medico-Legal Relations', to which Dr. Geo. M. Beard, of New York City, has prefixed an introduction on the nature and character of the trance state. By inebriety is meant what in this country passes under the name of dipsomania; and not alcoholism, *i.e.*, such cases as come directly from the toxic action of alcohol.

The state described is one of inebriate automatism, analogous to epileptic automatism, inebriate insanity, or inebriate unconsciousness. Dipsomania or inebriety is described as a nervous disease, frequently causing automatic acts, during which the subjects are more or less irresponsible, and they may commit crimes for which, in the authors' opinion, they ought not to be punished any more than the irresponsible insane of other classes. Although the suspicion might arise that these are cases of masked epilepsy, or epilepsy without convulsions, these patients are held to be not epileptic in any sense of the term. They are insane during the attacks, and the insanity is of a special and peculiar form. There are no physical signs of general paresis in the pupils, in the walk, or in the speech, or in the intellectual or moral phenomena exhibited by them, or in their subsequent history. Other drugs besides alcohol, it is said, will produce these effects; the bromides, for example, and possibly, in some cases, chloral-hydrate and opium. The fact, if a fact, that inebriety is a nervous disease, causing phenomena of the above kind, is important both in a scientific and in a medico-legal sense, and is claimed as a new and original discovery in medical science.

Dr. Crothers thinks that the persons were unconscious, during the trance, of what they did; but Dr. Beard holds a different opinion, thinking that they knew what they were about, to a greater or less degree; and this seems the more probable view. He draws, indeed, a distinction between consciousness and rememberable consciousness, and holds that there is a plane of consciousness below which it is unrememberable, and above which it is more or less rememberable. He illustrates this by anæsthesia. Patients, even when perfectly anæsthetised, cry out under severe operations, and we say that they do not feel the pain; although they probably do feel it dimly, transiently, at the time. Dr. Beard also contends that, for climatic and other reasons, there is much more of the nervous disease inebriety inherited and acquired in America, than in any other country, although there is less drinking among the better classes there than in any European country. He is of opinion that there is as much evidence of the existence of the functional nervous disease inebriety, characterised (1) by its irresistibility; (2) by its hereditary character and association with other nervous diseases; (3) by the suddenness of the attacks; and (4) by its periodicity—as there is of general paresis, or dementia, or melancholia, or marked epilepsy, or neurasthenia, or acute mania, or hysteria, or chorea, or locomotor ataxy.

Dr. Crothers details the cases of several persons who have come under his notice, and sums up his paper in the following propositions. 1. Inebriety must be recognised as a condition of legal irresponsibility, to a certain extent depending on the character and circumstances of the case, and the general mental integrity displayed. 2. All unusual acts or crime committed by inebriates, either in a state of partial coma or of alleged amnesia, which come under legal recognition, should receive thorough study by competent physicians before the legal responsibility can be determined. 3. When the trance state is established beyond doubt, the person is both legally and practically irresponsible for his acts during this period; and each case should be measured by the facts of its individual history. 4. Inebriety is a disease requiring physical means in the treatment. Society demands of the patient that he use diligence to recover, and so far as he may neglect this, both himself and community are responsible. 5. It is the duty of the State to provide asylums and encourage private enterprise to furnish the means and appliances for restoration. 6. Lastly, standing on this border-land, and looking back at the injustice and legal crime that is daily committed in the punishment of inebriates, who are practically insane, Dr. Crothers is convinced that the time has come for a revolution of sentiment and practice, in which both the inebriate and the community must be held responsible, not alone for his acts, or the consequences of them, but the causes and conditions which have developed in this way; then the victim will be forced to avail himself of every means for prevention, restoration, and recovery.

THOS. STEVENSON, M.D.

NEALE ON BEEF-TEA, LIEBIG'S EXTRACT, EXTRACTUM CARNIS, AND URINE.

DR. R. NEALE writes on this subject in the *Practitioner* as follows. In the *Lancet*, October, 1880, p. 562, Mr. G. F. Masterman draws attention to the chemical analysis of beef-tea, and shows that it is analogous to urine, excepting that it contains less urea and uric acid. Some years ago Mr. Masterman also gave analyses in one of the medical journals, but which of them I cannot learn, even from the author himself, showing that beef-tea, most carefully prepared, does not contain, including alkaline salts, more than from 1.50 to 2.25 per cent. of solid matters, and that such matter is mainly composed of urea, kreatine, kreatinine, isoline, and decomposed hæmatine, exactly the animal constituents of the urine, except that there is but a trace of urea. Many writers have endeavoured to impress the public and the profession with the true value of beef-tea, viz., that it is not a nutrient but a stimulant, and that it mainly contains excrementitious materials. It appears, however, of little avail, for one constantly meets with those, even in the ranks of the profession, who believe beef-tea to be really a powerful nutriment, while in most cases, among the public, the positive statement that in milk we possess a far cheaper and more powerful blood and flesh-making food than in beef-tea, is met with a sceptical stare. A short time since a consulting physician wrote in one of our periodicals, how he was not unfrequently called to cases where he found the patient literally starving to death in the midst of plenty. Wines and liqueurs of all choice brands covered the table, with beef-tea, jellies, and essence

of meats, in all their endless varieties, some of which, the consultant was told, were given every half hour, and therefore the patient had been well kept up. By a speedy clearance of all but the brandy bottle, and with the addition of two or three pennyworth of milk, he had, on several occasions, rescued a young and valuable life from certain death. The late Dr. Francis Sibson, in an admirable paper on Bright's disease and its treatment, published in the *British Medical Journal*, February 1877, p. 155, showed how detrimental beef-tea may prove in some cases of Bright's disease, where the kidneys are already taxed to the utmost to throw off metamorphosed structures; and yet the metamorphosed structures of the muscles of the cow are superadded, for these very materials, had the animal lived, would have been passed away as urine. Frequently, too, beef-tea is advised by practical physicians in diarrhœa, dysentery, and during the diarrhœa of typhoid fever; certainly a large experience of tropical dysentery and diarrhœa has taught the writer to look upon this fluid in the light of poison in such cases. Dr. Lauder Brunton has some very able remarks upon the occasional injurious results of beef-tea (*Practitioner*, November 1880, p. 325): 'We find only too frequently that both doctors and patients think that the strength is sure to be kept up if a sufficient quantity of beef-tea can only be got down; but this observation, I think, raises the question, whether beef-tea may not very frequently be actually injurious, and whether the products of muscular waste, which constitute the chief portion of beef-tea or beef-essence, may not under certain circumstances be actually poisonous. For, although there can be no doubt that beef-tea is in many cases a most useful stimulant, one which we find very hard indeed to do without, and which could hardly be replaced by any other, yet sometimes the administration of beef-tea, like that of alcoholic stimulants, may be overdone, and the patient weakened instead of strengthened.' Many other writers, who have from time to time endeavoured to impress the profession with the true value that beef-tea possesses as a stimulant, but not as a nutritive agent, may be referred to by the aid of the *Medical Digest*, Sections 124 and 125.

The non-nutritive, but valuable stimulating, powers of beef-tea, and its excellence as a vehicle for flesh-making food, such as bread, being fully conceded, it will be interesting to note some facts proving that similar properties have long been known as pertaining to urine. In South America, urine is a common vehicle for medicine, and the urine of little boys is spoken highly of as a stimulant in malignant small-pox. Among the Chinese and Malays of Batavia, urine is very freely used. One of the worst cases of epistaxis ceased after a pint of fresh urine was drunk, although it had, for thirty-six hours or more, resisted every form of European medicine. This was by no means an unusual result of the use of urine, as I was informed by many of the natives. Hypodermic injections of ergot were then unknown. As a stimulant and general 'pick-up,' I have frequently seen a glass of a child's or young girl's urine tossed off with great gusto and apparent benefit. In some parts of our own country the use of urine, as a medicinal agent, is not unknown. The use of urate of ammonia and guano was noticed by Bauer in 1852, who found their external use of value in phthisis, lepra, morphœa, and other obstinate skin diseases. Dr. Hastings' report of the value of the excreta of reptiles in 1862 in the treatment of phthisis, will also be fresh in the recollection of the older members of the profession. Possibly other observers may be able to add further to our information regarding the medicinal uses of urine both at home and abroad.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1. ARMINGUE.—A New Vesicant. (*La Independencia Med.*, Feb. 1, 1881.)
2. LECAILLE.—A New Method of Treating Yellow Fever. (*La Independencia Med.*, Jan. 22, 1882.)
3. DENKER.—The Treatment of Diphtheria. (*Vracheb. Vedom.*, No. 3, 1882.)
4. LESENEVICH, B.—Treatment of Whooping-Cough by Belladonna. (*Vracheb. Vedom.*, 1882, No. 4, pp. 2950, 2951.)
5. VECHTOMOFF.—Quinine in the Treatment of Small-Pox. (*Vracheb. Vedom.*, No. 10, 1882.)
6. COOK, E. A.—The Treatment of Diabetes. (*Practitioner*, April 1882, p. 247.)
7. PACK.—Linimentum Crotonis in Acute Bronchitis. (*Practitioner*, March 1882, p. 170)
8. SOULÉ.—Treatment of Sea-Sickness. (*New York Med. Rec.*)
9. PAUL.—Saccharate of Calcium in Burns. (*La Ruche Pharm.*, Jan. 1882.)
10. ZEISSL.—Iodide of Lithium. (*Pharm. Centralbl. and Pharm. Jour.*)
11. PAYNARDEAU AND TAVAC.—The Use of Pilocarpine in Diphtheria. (*Jour. de Thérap.*, April 10.)
12. ARCHAMBAULT.—The Treatment of Diphtheritic Paralysis. (*Gaz. des Hôp.*)
13. OLLIVE.—Discutient Action of Alcohol employed as a Topical Application in Inflammation. (*France Méd.*)
14. FOSTER. — Iodoform in Gynæcological Practice. (*New York Med. Jour.*)
15. WIEGAND.—On Wine of White Ash Bark. (*Amer. Jour. of Pharm.*)
16. Medicinal Uses of Peroxide of Hydrogen. (*Pharm. Jour. and Trans.*, March 11.)
17. NEUSS.—Preparations of Iron for Subcutaneous Injections. (*Zeitschr. für Klin. Med.*, Band iii.)
18. DESCAMPS.—The Treatment of Pleuritic Effusions by Respiratory Gymnastics. (*Riview de Thérap.*, April 1, 1882)
19. SCHWARZ.—The Transfusion of Alkaline Solution of Common Salt in Acute Anæmia.
20. CERVELLO.—On Adonidin. (*Archiv für Exper. Pathol. and Pharm.*, Band xv.)
21. VULPIAN —Salicylate of Bismuth in Typhoid Fever. (*Jour. de Pharm.*, Band xv.)
22. SCHWARZ.—Transfusion of Alkaline Solution of Common Salt in Acute Anæmia.

1. *Armenguè on a New Vesicant.*—Dr. José Armenguè of Barcelona (*La Independencia Medica*, Feb. 1, 1882) has recently experimented with a new vesicating material derived from the *Œnas Afer*, a coleopterous insect, found in large quantities in certain districts of Spain. The experiments were carried out by Dr. Armenguè on his own person and on several medical students. The results obtained lead to the conclusion that, in the *Œnas Afer*, a very much more safe, cheap, and readily available means of producing vesication exists than in the old-fashioned cantharides. The advantages claimed for the new material are—that it acts quickly, and with scarcely any appreciable pain; that the limits of vesication extend beyond the mere seat of the blister; and that from the experiments, so far as they have

been carried out, it appears to have no physiological action on the genito-urinary system. This latter fact alone, if subsequently established, will at once stamp the *Œnas Afer* as a valuable addition to the materia medica.

2. *Lecaille on a New Method of Treatment of Yellow Fever.*—Dr. Lecaille has recently (*La Independencia Med.*, Jan. 22, 1882) called attention to the favourable results which he has obtained in twelve cases of yellow fever from the use of carbolic acid administered internally and hypodermically. He was led to try this remedy inductively, believing that yellow fever is essentially a zymotic disease. In one case which he records, the dreaded and generally fatal symptom of black vomit had already appeared. He injected subcutaneously 100 minims of a 5 per cent. solution, and administered a julep composed of carbolic acid and carbolate of ammonia, supplemented by enemata of sulpho-carbolate, at intervals of two hours. This treatment is generally successful within three days, but may be continued to the seventh. LITTON FORBES.

3. *Denker on the Treatment of Diphtheria.*— Dr. Denker (*Vracheb. Vedom.*, 1882, No. 3), who, during his twenty-four years' practice in the large Nicolaevsky Children's Hospital in St. Petersburg, treated above two thousand diphtheritic cases, and tried all possible external and internal remedies recommended for this grave affection, obtained the best results from the following method, which he has practised ten years. As soon as white spots appeared on the tonsils, the author administered the *aqua laxativa Viennensis* (compound infusion of senna), in doses of six ounces to an adult man, of five ounces to an adult woman, three ounces to a child eight years old, two ounces to a child three years old, and a teaspoonful to a infant twelve months old. The dose was divided into three parts; one-half was taken at once, a quarter of the dose an hour later, and still later the remaining quarter of the medicine. Abundant liquid stools followed. When the purgation stopped, the author ordered a cooling draught, containing some hydrochloric acid, and, every two hours, a gargle, consisting of equal parts of lime-water and hot milk, the same mixture being used for cleansing (by means of a pencil), the throat and nasal cavity. Dr. Denker alleges that, when early begun, such treatment generally led to a rapid recovery of patients.

4. *Lesenevich on the Treatment of Whooping Cough by Belladonna.*—Dr. Lesenevich (*Vracheb. Vedom.*, 1882, No. 4), states that he obtained the best results from powdered belladonna root, administered in doses of one-thirtieth, one-twenty-fourth, and one-twelfth of a grain, three or four times daily. A very rapid diminution of the number, the duration, and the intensity of paroxysms followed. The duration of the spasmodic stage of the affection was cut short, the shortening being equal to some weeks (comparatively with cases of pertussis, treated by other remedies.) [Not less favourable results from the belladonna treatment of whooping-cough were obtained by Drs. Wigglesworth and R. Neale (LONDON MEDICAL RECORD, June, 1879, p. 222), and Professor Heubner (*Ibid.*, November, 1881, p. 458), as well as by very numerous other observers in England, United States, France and Germany.—*Rep.*]

5. *Vechtomoff on Quinine in Small-Pox.*—Dr. Vechtomoff (*Vracheb. Vedom.*, No. 10, 1882), following Dr. Stiemer's recommendation, administered to seven patients with small-pox (in the initial stage), quinine in doses of 12 to 120 centigrammes, and reports on the results of this plan as follows. 1. All the patients treated by quinine presented relatively slight eruption, while almost all other patients, intentionally left without quinine, were covered with confluent pustules. 2. All the patients treated by quinine recovered, while the mortality in all the other cases during the epidemic given was as high as 20 to 30 per cent. 3. All the cases treated with quinine were quite free from any complications, while almost all those treated otherwise were gravely complicated. 4. In the quinine cases the suppurative fever was slight, or was absent altogether. The author recommends a fair trial of this simple plan of treatment.

V. IDELSON, M.D.

6. *Cook on the Treatment of Diabetes.* — Dr. Edmund A. Cook, in the *Practitioner*, April 1882, p. 247, makes some excellent remarks on the treatment of diabetes mellitus. The marked diminished action of all the secreting organs of the body, excepting the kidney, deserves attention. Diminution of urine is not a mark of improvement, but rather the reverse, because then the sugar is not excreted. The imbibition of large quantities of water destroys the action of the gastric glands, and so the patient is badly nourished. Opiates, Dr. Cook thinks, are bad, although they certainly produce temporary improvement. To relieve the thirst and hard dry tongue, pilocarpine in doses of one-twentieth of a grain every four hours is very useful. Constipation is a marked symptom, and often attends the cases of sudden death frequently met with in diabetic subjects. Enemata are most useful to correct this symptom. Pepsine and hydrochloric acid with all the meals assist very materially the digestive powers, and fluids should not be taken just previous to meals. Much phosphates pass by the urine; and, to replace this loss, the administration of phosphates is most desirable. The paper is very suggestive, and Dr. Cook believes that the line of treatment advocated will rarely fail to cause improvement in diabetic cases.

7. *Park on the Use of Linimentum Crotonis in Acute Bronchitis.*—Dr. R. Park, in the *Practitioner*, March 1882, p. 170, details the advantages he has derived from free applications of this liniment in cases of acute bronchitis. Dr. Park uses it in infancy, as well as in advanced years.

R. NEALE, M.D.

8. *Soulé on the Treatment of Sea-Sickness.*—Dr. Milan Soulé, surgeon on the steamship *City of Sydney*, has written (*New York Med. Record*) an account of his experience with the treatment of sea-sickness with bromides, as laid down by Dr. G. M. Beard. About three years ago, he began to use the bromides, following, as nearly as possible, the direction given by Dr. Beard. During nearly four years passed in the service of the Pacific Mail Steamship Company, he had tried nearly every drug or combination of drugs that had ever been proposed, but without success. He found that the bromides enabled him to entirely prevent or greatly to alleviate the disease, and he has not one failure to record. The following is the combination he most frequently employed, viz., R. Sodii bromidi, ʒ iv; Ammonii bromidi, ʒ ij; Aquæ menthæ piperitæ, ʒ iij. M.S.—A teaspoonful before meals and at bed-time; begin treatment three days before going on board. When preparatory treatment has been neglected and the disease is fully established, he puts a teaspoonful of the above in a half-tumbler of water, adds a drop of fluid extract of ipecacuanha, and gives a teaspoonful every five

minutes. It generally relieves the patient in less than an hour. Next to the bromides, he has found hyoscyamia the most successful remedy. Atropia frequently affords relief, but is not altogether safe, as retention of urine sometimes follows its use. Nitrite of amyl has failed in Dr. Soulé's hands. In several cases, the bromides entirely prevented sea-sickness during voyages of from twenty to thirty days, although these patients were always sick on previous voyages.

9. *Paul on Saccharate of Calcium in Burns.*—Instead of the ordinary mixture of oil and quicklime, Dr. C. Paul (*La Ruche Pharm.*, Jan. 1882) prepares a liniment made of saccharate of calcium in the following manner. Equal parts of sugar and slacked lime are triturated together. Water is then added gradually by slow degrees, so as to render the mixture perfectly liquid. After forty-eight hours, the whole is thrown on a filter, and the filtrate evaporated to the consistency of a syrup. The whole is then mixed with one part of glycerine and three parts of oil. A layer of the resulting mixture is spread on the linen, and covered over with cotton-wool or clean rag. This liniment has the advantage of containing a larger quantity of lime than the ordinary mixture.

10. *Zeissl on Iodide of Lithium.*—It is known that in some cases the internal administration of potassium iodide and other forms of iodine is ill tolerated by the patient. Professor Zeissl of Vienna (*Pharm. Contralblatt*, and *Pharm. Jour.*) recommends in such cases a trial of iodide of lithium, made up in the pill form with powder and extract of quassia, each pill containing 75 milligrammes of the iodide. He states that iodide of lithium is tolerated during a long time, and is not at all inferior in therapeutic effect to other compounds of iodine.

11. *Paynardeau and Tayac on the Use of Pilocarpine in Diphtheria.*—Dr. Paynardeau (*Jour. de Thérap.*, April 10, 1882), in his thesis on this subject, published at Paris, December 1881, concludes from his researches into the works published on the administration of pilocarpine by various authors that, from its sialagogue properties, it has a true but inconstant action on the detachment of false membranes. M. Archambault, in his recent communication to the Society of Therapeutics, owned that, notwithstanding some unfortunate results which have occurred under the influence of pilocarpine, false membranes are detached sooner and in larger proportion than is usually the case. False membranes of the air-passages, inaccessible to local means, may be detached and expelled by the aid of pilocarpine. Paynardeau points out that it is indicated in croup and in pseudo-membranous bronchitis before and especially after tracheotomy, but only when danger arises from the false membrane itself, and not from the diphtheritic poisoning. On the other hand, false membranes situated in the pharynx and the nasal cavities are directly accessible, and are in general sufficiently easy of detachment, either by the aid of forceps or by injections or astringent applications. But the false membrane is not everything in diphtheria. The patient less frequently dies from asphyxia than from the effect of poisoning, when false membranes have for some time disappeared, or are not very abundant. Likewise, pilocarpine does not appear to facilitate the elimination of the diphtheritic poison by the perspiration and by the salivation which it induces. It neither prevents reproduction of the false membrane nor diphtheritic paralysis. Pilocarpine induces in the digestive canal of the circulatory apparatus symptoms which only add to the gravity of the general condition of the patients, viz., vomiting, which is sometimes violent and persistent, diarrhœa, and especially a state of prostration and collapse, so much the more to be dreaded, as diphtheria has a tendency to spontaneously induce syncope and cardiac asthenia. Therefore, M. Paynardeau disapproves of the use of pilocarpine whenever there is reason to suspect any change in the muscular tissue of the heart. M. Tayac, in a work on the same subject, published at Paris, February 1882, shows himself a decided partisan of the use of pilocarpine in diphtheria. He states that its action is prompt and energetic, and its administration nearly always followed by the elimination of the diphtheritic deposit, frequently coinciding with a sensible improvement in the general condition. If administered from the commencement, it may prevent the development of the disease, especially when it is of a relatively mild type. Its use is the more to be recommended, since it does not interfere with the employment of other therapeutic means. The author describes in detail the methods of administering pilocarpine. Dehio of St. Petersburg omits the pepsine and hydrochloric acid which are present in Guttmann's prescription, and gives simply a solution of hydrochlorate of pilocarpine, to which he generally adds some sherry, so as to prevent collapse. His formula is as follows. Hydrochlorate of pilocarpine, 5 or 6 centigrammes; distilled water, 50 grammes; wine, 50 grammes; to be taken in doses of 10 grammes every hour or two hours. The kind of pilocarpine used is of importance. Dehio shows by means of various experiments that the pilocarpine of Merck (of Darmstadt) is much more active than that of Tromsdorff. It must also not be forgotten that pilocarpine is very hydrometric. It should, therefore. not be prescribed in too divided doses. Demme uses hypodermic injections. According to his researches, the initial dose of pilocarpine should be from half to one milligramme for children under a year old, increased to 5 milligrammes for children from one to ten years old. If there be no special susceptibility with regard to this medicine, the dose may be progressively increased, and the injections renewed several times daily. Lepidi-Chioti has instituted comparative experiments on the best method of administering this remedy. According to him, the action of the hypodermic injection may be valued at double of that produced by internal administration. In order to avoid the vomiting which not unfrequently follows internal administration, as well as the pain and alarm occasioned by the punctures, he prescribes enemata of 60 grammes, each containing 3 centigrammes of salt of pilocarpine. He affirms that excellent effects are obtained by the rectum much more promptly than by the stomach. He has thus obtained salivation in from ten to fifteen minutes. This fact, if it should be confirmed, would be of great importance, and injections of pilocarpine would hold the first rank in the treatment of diphtheria by this method. M. Tayac shows that the improvement produced is in direct ratio with the amount of salivation; and on this point there is complete harmony between writers on the subject. It is necessary to take careful account of individual susceptibility with regard to pilocarpine, which varies much in different individuals. In some children, the sialagogue and diphtheritic effects are in an inverse ratio, so that they may sometimes supplement each other. In addition to these effects,

there is often abundant secretion from the nasal and laryngeal membranes. In consequence of its activity, the use of pilocarpine has its drawbacks. The patients are tormented by nausea, vomiting, cramps, and gastralgia, the results of the irritation of the primæ viæ. Vomiting is very frequent, less annoying in children than in adults. It is advantageously combated with coffee without milk. It may be prevented by administering to the patient brandy, wine, or even an injection of ether. The most serious accident, however, is collapse. So soon as there is any menace of collapse, it will be necessary to suspend the medicine, and to give restoratives and tonics. It, therefore, appears that, notwithstanding the authoritative dictum of M. Archambault, the action of pilocarpine in diphtheria is not yet perfectly clear. It is still open to discussion, and further trials are both legitimate and necessary.

12. *Archambault on the Treatment of Diphtheritic Paralysis.*—In a lecture at the Hospital for Sick Children (*Gaz. des Hôp.*), M. Archambault has described the therapeutic indications which should guide the physician in the treatment of diphtheritic paralysis. The subjects of this disease being gene rally weak and anæmic, the first indication is to have recourse to preparations of iron, with a syrup of iodine of iron, and especially iron pills, which are more easily swallowed than liquids; quinine in pills of 25 centigrammes each, eight a day, is also indicated. To excite muscular contraction, tincture of nux vomica should be administered as a draught in progressive doses, commencing by ten drops, and being increased to 15 to 20 drops a day. Dry friction on the skin, or with a piece of wool impregnated with benzoin, is also prescribed to stimulate nutrition and arouse sensibility. The baths of Barèges are also an excellent stimulant. Residence at the sea-side and sea-bathing give good results in patients in whom these paralytic symptoms last for several months. To these different methods, M. Archambault adds the employment of electricity in continuous currents, which he considers as having a better effect on nutrition than intermittent currents. Finally, when it is absolutely impossible to feed the patient by the ordinary methods, on account of the danger of fits of suffocation, he has recourse either to the œsophageal sound or to nutrient injections. In reference to the ocular troubles, of which it is not generally very necessary to take much note, M. Archambault prescribes, when they have a certain persistency, a collyrium composed of 10 centigrammes of sulphate of eserine in 30 grammes of distilled water.

13. *Ollive on the Discutient Action of Alcohol employed as a Topical Application in Inflammation.*—During his dressership under Dr. Th. Anger, M. Ollive frequently saw that excellent surgeon employ alcohol as a topical application either in acute inflammations of the areolar tissue or in those of divers serous membranes, and especially of the peritoneal membrane. He was struck with the excellency of the method, and with the good results obtained in the majority of cases. Next year he became dresser in a medical ward, and several times had the opportunity of applying this treatment, which had been taught to him by Dr. Anger. His principal in this ward, M. Sevestre, was very much in favour of this method of treatment, and himself many times noted the successful effects of alcohol applied as a topical application. The direct application of this method is as follows (*France Méd.*). In the first instance, the alcohol used must be pure; as far as possible, alcohol from 80 to 90 degrees. If either impure or not sufficiently concentrated, alcohol does not probably produce the same results. The material used is linen completely immersed in the alcohol, then wrung out so as to remove the excess which would soil the bed or the clothing of the patient. The best material to be employed for small surfaces is amadou, because it absorbs a large quantity of fluid, perhaps as much as fifteen or sixteen times its weight; but, for a large surface, old linen, cotton, or, better still, tarlatan, is preferable. The latter, folded seven or eight times, should be first rinsed out in warm water and then steeped in alcohol. The material should be shaped according to the region to which it is to be applied. The dressing is then covered with oiled silk, or, what is preferable, gold-beater's skin. The dressing should be renewed every three or four hours. After some days, the same material cannot be used, for, becoming shrunk by the alcohol, it does not absorb so well, and, therefore, the efficiency of the dressing is diminished.

14. *Foster on Iodoform in Gynæcological Practice.*—Dr. Frank P. Foster, editor of the *New York Med. Jour.*, publishes, in the March number of that journal, some clinical notes of iodoform in gynæcological practice, especially in pelvic peritonitis and cellulitis of a chronic form. The cases are classified according to the abnormalities ascertained to be present. 1. Cases in which inflammatory action was supposed to exist, or to have existed, but in which the uterus was freely movable without pain; 2. Cases in which the mobility of the uterus was but slightly, if at all, impaired, but in which motion of the organ was painful; 3. Impaired mobility of the uterus, with little or no pain on removing it; 4. Mobility of the uterus decidedly impaired, with pain on removing it; 5. Uterus nearly or quite immovable, with little or no pain in attempting to move it; 6. Uterus nearly or quite fixed, with decided pain on attempting to move it; 7. Cases of palpable inflammatory deposit. The most prompt and satisfactory results were obtained in the last group of cases—those of palpable pelvic exudation. Such cases, however, do better, according to the author's experience, under the more usual methods of treatment than those in which the exudation is not capable of detection by palpation, but is inferred to be present from conditions that can scarcely be explained on any other theory. But, while such is the case, it is quite as true, he remarks, that we now and then meet with bulky exudations that prove utterly rebellious to treatment. A good deal depends, no doubt, upon whether the deposit is of recent or of remote formation; and this question is not always easy to settle in the cases of patients whose past history we know nothing beyond what we may be able to elicit by questioning them. Taking the seven groups together, it seems to him that the patients progressed more satisfactorily, on the whole, than they would have done without the use of iodoform. Their proper use being assured, he would esteem the three great remedies for chronic extra-uterine pelvic inflammation in the following order. 1. Hot water; 2. Iodoform; 3. Galvanism. As to the best method of using iodoform, he prefers its application to the upper part of the vagina, and his practice is to plug the whole vaginal canal with cotton wick. This prevents the application from being washed away with the discharge, and the tampon is often of great service by its mechanical action—steadying the uterus, sometimes exerting a gentle, even distension upon the deposit, and per-

haps inducing muscular contraction. The tampons may be retained for several days; his custom is, however, to direct their removal at the end of thirty-six hours. Used in this way, he has never known iodoform to betray the patient by its odour; although its taste is sometimes complained of. For occasional use, as an anodyne; in acute cases, in which the patients are not likely to be asked embarrassing questions by strangers, and in which, as well as in cases of vulvar hyperæsthesia, it is an object to avoid meddling with the genital canal; also with patients who can not have continuous treatment by the physician himself, the employment of rectal suppositories is a valuable resource.

15. *Wiegand on Wine of White Ash Bark.*—A paper on this subject, by Mr. T. S. Wiegand, is published in the *Amer. Jour. of Pharm.* This preparation has been prescribed with great success by Dr. Chas. P. Turner of Philadelphia, in the treatment of dysmenorrhœa and the troubles that frequently complicate it. The botanical name of the tree is *Fraxinus Americana, Lin.*, white ash, sometimes improperly written *Fraxinus alba.* In favourable localities the tree reaches a height of eighty feet, with a diameter of three feet. It flourishes in northern New York and northward in Canada, but it is found in New Jersey, Pennsylvania, and further south and west. Its common name of white ash is most probably due to the colour of the bark, by which it may easily be distinguished. On the trunk of the tree the bark is often deeply furrowed and divided into squares of one to three inches. The foliage is made up of compound leaves consisting of three or four pairs of leaflets, with a terminal one; the leaflets being oval acuminate, petiolate, and glaucous on the under side. The bark, as found in commerce, is usually cut transversely, and when dried is of a light salmon colour, of very slight odour, and bitterish taste. The virtues are best extracted by a weak alcoholic menstruum. The following formula yields a preparation which Dr. Turner has found most useful in practice: Take of inner bark of the white ash, powd. No. 40, ℥viii; sherry wine sufficient for Oii. Macerate the bark for three days, pack firmly in a cylindrical percolator, and displace slowly two pints. The wine thus prepared has a colour of brown sherry, and a taste quite peculiar. The usual dose is a teaspoonful three times a day.

16. *Medicinal Uses of Peroxide of Hydrogen.*—In the *Pharm. Jour. and Trans.*, of March 2, it is remarked that peroxide of hydrogen has not hitherto played a conspicuous part in therapeutics. The reason may be, that formerly pure and durable solutions were not to be had at a reasonable price. This, however, is no longer an impediment, and the tendency of the peroxide of hydrogen, as at present obtainable, to decompose can be considerably restricted; possibly peroxide of hydrogen turned into simple water, may formerly have led to wrong conclusions. Peroxide of hydrogen, if preserved in the dark, and in a temperature not exceeding 25 deg. Cent. (77 deg. Fahr.), keeps unaltered for months. Peroxide of hydrogen, like chloride, bromide, and permanganate of potassium, is probably a poison to the smallest organisms (bacteria); exact comparative experiments, with a view to ascertain this, are much to be desired. The germs of yeast are entirely killed by peroxide of hydrogen, even when greatly diluted. As regards the fitness of peroxide of hydrogen for treating wounds, caused by syphilitic, scrofulous, and tuberculous ulcers, favourable experience has been gleaned by a physician at Hanover. It is probable that peroxide of hydrogen will do good service in the shape of spray in operating and applying ligatures. The great advantages possessed by peroxide of hydrogen, as compared with other media of disinfection, are: 1. Complete absence of smell; 2. Yielding oxygen without leaving any other residuum but pure water; 3. Absence of injurious influence on the organism. The workmen occupied in making peroxide of hydrogen get exceedingly delicate hands, and wounds heal visibly under its influence. There seems room for employing the peroxide of hydrogen as a means of disinfecting sick chambers, and generally for purifying the air. Peroxide of hydrogen has been used in dentistry by C. Sauer (*Quarterly Review of Dentistry*, No. 4, 1879), who used it with success in bleaching discoloured and carious teeth. In cases where the teeth are covered with coloured matter (*Lichen dentalis, etc.*) he employs peroxide of hydrogen in conjunction with finely levigated pumice-stone as a means of cleaning, in place of water. Teeth, the native channels of which were filled with coloured matter, became somewhat paler after several applications. A suitable liquid for cleaning teeth and mouth is prepared by mixing one part of three per cent. peroxide of hydrogen with ten parts of water. In case of carious teeth, the peroxide of hydrogen on wadding was locally used with advantage.

17. *Neuss on Preparations of Iron for Subcutaneous Injection.*—Many stomachs are intolerant of iron, even when the general condition indicates the necessity for its use. In these circumstances, subcutaneous injection is useful; and the reason that this method has not up to the present time been much used, is that the proper preparation of iron for the purpose has not yet been decided upon. Dr. Neuss (*Zeitsch. für Klin. Med.*, Band iii) undertook a series of experiments on the powers of diffusion possessed by different salts of iron and their facility for absorption. He used Graham's dialyser, and first made experiments on rabbits, the results of which he applied to the human subject. It would, however, be imprudent to draw absolute conclusions from experiments on animals, for the rabbit bears, without inconvenience, injections of iron, which in similar doses would bring on local troubles in the human subject. From his experiments, the author recommends in preference pyrophosphate of iron associated with citrate of soda, which contains a large proportion of iron (26.6 per cent.) Next comes albuminate of iron, and, finally, the pyrophosphate of iron associated with citrate of ammonia; but this in one case appears to have brought on some troublesome symptoms.

18. *Descamps on the Treatment of Pleuritic Effusions by Respiratory Gymnastics.*—Dr. Descamps has studied the action of respiratory gymnastics on pleuritic effusions (*Revue de Thérap.*, April 1, 1882). The conclusions of his paper, read to the Society of Medicine at Antwerp, were as follows. 1. There is, in the treatment of affections of the chest in general, and of pleuritic effusions in particular, an important factor of which but little note has been taken up to the present time, notwithstanding the facility of employing it. This factor is the act of respiration. 2. Deep and regular respiration may be opposed to the impediment to the circulation—to the congestion of the lung, in many cases in which external or internal influences tend to produce it. It may prevent or impede the attack of illness. 3. When the air inspired is pure and wholesome, a very favourable effect is exercised in declared pulmonary affections

by regulating the gaseous and nutritive changes, by maintaining the permeability of the bronchi, by favouring circulation, and removing congestion of the pulmonary tissue, without speaking of the general good effects which are produced by the more complete formation of the blood. 4. In cases of pleurisy with effusion and compression of the lung, the act of respiration, if well regulated, may act in a very favourable manner, or the absorption of the exudation, and on the unfolding and progressive return of the lung to its normal size, by opposing its atrophy. For this purpose, in producing the converse of the tendency which exists in these cases, the breathing should be carried on by the sound lung as little as possible, so as to force that which is compressed to respire and to become dilated as much as possible. This result may be attained by an habitually full and deep respiration, the body being in such a position, whether standing, sitting, or lying, that the filling of the chest may be reduced to a minimum on the healthy side and raised to a maximum on the affected side. In pleurisy, the respiratory action should be put into practice at a suitable time, and should not exclude the preliminary or concomitant use of other means which may be indicated. 5. In cases of thoracentesis, the best method of avoiding the accidents which accompany and sometimes follow this operation, is to favour the unfolding and the expansion of the lung by regulated respiratory exercises before, during, and after the operation. 6. The same exercises, both preparatory and consecutive, are very useful in cases of empyema, whether spontaneous or produced by operation. The pulmonary circulation, rendered more easy and more active by more regular and complete respiration, exercises a favourable influence on the general circulation, and may thus contribute to the clearing and to the return to the normal condition of important organs which have either become hyperæmic or inflamed, such as the brain, the liver, the kidneys, the peritoneum through the liver, and the intestines themselves.

19. *Cervello on Adonidin.*—In a communication to the *Archiv für Experimentelle Pathol. und Pharm.*, vol. xv., p. 235; and *Pharm. Jour.*, April 29, 1882, Dr. Cervello describes some results obtained with a substance that he considers to be the active principle of the *Adonis vernalis*, and which he has named 'adonidin'. It is a glucoside, and is amorphous, colourless, odourless, and extremely bitter. In alcohol it is freely soluble, but only slightly so in ether and in water. In dilute hydrochloric acid it is insoluble in the cold, but when heated it splits up into sugar and a substance soluble in ether. In its physiological action, Dr. Cervello found adonidin to resemble digitalin in every respect, with the exception that it is far more energetic.

20. *Vulpian on Salicylate of Bismuth in Typhoid Fever.*—In the *Jour. de Pharm.* for April (*Pharm. Jour.*, April 29), M. A. Vulpian gives an account of the treatment of typhoid fever with salicylate of bismuth, a salt which is given in doses of 30 grains, three times a day. This salt has already been recommended by M. Dujardin-Beaumetz in diarrhœa. M. Vulpian has found it useful in that complaint as well as in rheumatism accompanied with diarrhœa; but in typhoid fever it seems to have the advantage only of lowering the temperature of the body without cutting short the duration of the fever.

21. *Fox on the External Application of Chrysophanic Acid.*—An improvement in the external application of chrysophanic acid has been suggested by Dr. Geo. Fox of New York (*Med. Times and Gaz.*, p. 826). A soft paste made by rubbing the acid with water is smeared on the skin, and as soon as this dries a layer of collodion is allowed to flow over the spot, or gutta-percha tissue is applied over the patches where the ointment of chrysophanic acid has been applied.

22. *Schwarz on the Transfusion of Alkaline Solution of Common Salt in Acute Anæmia.*—This author, considering that the cause of death from hæmorrhage, and in general the cause of acute anæmia, is the deficient filling of the vascular system and consequent diminution of blood-pressure, has performed a number of experiments on rabbits and dogs to show the use of the transfusion of an alkaline 0.6 per cent. solution of common salt. He finds that the transfusion of a large quantity of this solution, even without previous hæmorrhage, produces no bad effect, and that, after sudden and severe hæmorrhage, it prevents death, and even brings round animals at the point of death.

JAMES ANDERSON, M.D.

ELECTRO-THERAPEUTICS.

RECENT PAPERS.

1. WALLER and DE WATTEVILLE.—On the Electrotonus of the Human Nerves. (*Proc. of Roy. Soc.*, Feb. 1882.)

2. DE WATTEVILLE.—On an Electro-Therapeutical Superstition. (*Brain*, July 1881.)

3. LÖWENFELD.—On the Electro-Therapeutics of the Brain. (*Centralblatt für die Med. Wissensch.*, No. 8, 1881.)

4. LEEGARD. — On the Reaction of Degeneration. (*Arch. für Klin. Med.*, 1880; and *Brain*, Jan. 1882.)

5. BASTELBERGER.—On the Reaction of Degeneration. (*Archiv. für Klin. Med.*, 1881.)

6. ADAMKIEWICZ. — On Isogalvanic and Isofaradic Reactions. (*Charité Annalen*, Band v, 1880.)

7. RUMPF.—On the Treatment of Tabes with the Electric Brush. (*Neurologisches Centrabl.*, Nos. 1, 2, 1882.)

8. ENGELHORN.—On General Faradisation. (*Centralb. für Nervenheilk.*, No. 1, 1881.)

9. PAUL.—On the Faradic Bath. (*Le Prog. Méd.*, No. 34, 1880.)

10. FISCHER and SCHULTZE.—On the Electrical Reactions in Cases of Dementia Paralytica. (*Arch. für Psych.*, vol. xi.)

11. MÖBIUS.—On Electro-Sensitive Persons. (*Memorab.*, Nos. 4, 5, 1881.)

12. MANN.—A Case of Paralysis Agitans Cured by Electricity, etc. (*Jour. of Nervous and Mental Diseases*, No. 1, 1881.)

13. MORTON.—On Static Electricity. (*New York Med. Record*, April 1881.)

14. LÖWENFELD.—On the Electrical Treatment of Angina Pectoris. (*Aertz. Intelligenzbl.*, No. 39, 1881.)

15. CHÉRON.—On the Galvanic Treatment of Chronic Metritis. (*Rev. des Maladies des Femmes*, 1880.)

16. STAMPACCHIA.—On a New Method of Using Electricity in Neuralgia. (*Gior. Intern. delle Scienze Med.*, vol. ii, 1880.)

17. BALL.—Hemianæsthesia Removed by Static Electricity. (*Lancet*, vol. ii, 1880.)

18. KILNER.—A New Medical Galvanometer. (*St. Thomas's Hosp. Rep.*, 1880.)

19. SIEFFERMANN.—On the Electric Douche. (*Mem. de la Soc. Méd. de Strasb.*, 1880.)

20. GÜNTHER.—The Use of Electricity in Diseases other than those of the Nervous System. (*Corresp Blatt. für Schweiz. Aerzte*, 1880.)

21. SMITH.—Galvanism in the Treatment of Puerperal Convulsions, Traumatisms, and other Painful Conditions. (Gaillard's *Med. Jour.*, 1880, p. 113.)

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See also the **British Medical Journal,** Jan. 28, 1882; the **Medical Times and Gazette,** Jan. 7, 1882; the **Medical Press and Circular,** March 15, 1882; and the **Chemist and Druggist,** Feb. 15, 1882.

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1. *Waller and de Watteville on the Electrotonus of Human Nerves.*—The authors, in the abstract of their memoir (*Proc. Roy. Soc.*, Feb. 1882), state the results they have reached in their investigations concerning the influence of the galvanic current on the excitability of the motor nerves of man, and which coincide in a great measure with the phenomena observed on the exsected frog's nerve. (*a*) During the flow of the current the excitability is increased at the cathode ; augmented at the anode. (*b*) With increasing strength of the polarising current, there occurs what appears to be an invasion of the anelectrotonic by the catelectrotonic (physiological) zone. (*c*) After the opening of the polarising current the previously increased excitability at the cathode passes into a marked diminution of very appreciable deviation, and which gradually gives way to a renewed increase of considerable duration. The previously diminished excitability at the anode passes directly into a condition of increased excitability, of marked degree and duration. The memoir contains a description of the methods, a discussion of the sources of error and of the precautions to be taken in the experimentation, and mentions a number of phenomena incidentally observed. The modes of stimulation, or testing of the nerves, were electrical currents, galvanic and faradic, and mechanical stimuli. [For a fuller account see *Neurologisches Centralbl.*, April 1882.—*Rep.*]

2. *De Watteville on an Electro-therapeutical Superstition.*—The author says (*Brain*, 1881, p. 207) : 'Under the title of galvanisation of the sympathetic has been and is being accumulated, a large amount of that kind of literature which has done much to cast discredit upon the subject of electrotherapeutics. Erroneous physics, imaginary physiology, fantastic pathology are there, worked by processes unknown to ordinary logic into a sort of mystical creed.' This statement is illustrated by quotations from several authors. The alleged physiological effects of the method are then discussed, and stated to be either imaginary or due to other causes than to the excitation of the sympathetic itself, whilst no undisputed proof of such an excitation (vaso-motor constriction, dilatation of pupil, etc.) has ever been furnished.

3. *Löwenfeld on the Electro-therapy of the Brain.*—The author (*Centralbl. für die Med. Wissensch.*, 1881, No. viii) has made many experiments on animals, and arrives at the following conclusions. 1. The ascending current (positive pole to the neck, negative pole to the forehead) causes dilatation of the arteries of the pia mater ; the descending current a constriction of the same. 2. Transverse currents (from temporal to temporal) produce dilatation on the side of the anode, and constriction on the side of the cathode. This pamphlet contains an elaborate study of all what has been written on the subject of galvanisation of the brain from a clinical point of view. His own conclusions occupy little space, and may be summed up that the positive pole is to be applied to the skull to increase, the negative to diminish, the circulation in the brain. [Admitting the reality of the author's results, it would still be more than doubtful that they could be obtained on the human subject. In order to have currents of equal density in the cases of a rabbit's and a man's brain respectively, their strength ought to be proportional to the diameter of their brains. Now the author used currents of such strength in his experiments, as to make corresponding applications to a human brain a very questionable proceeding. His current-measurements, however, were very superficially made, and he had to employ a magnifying glass to discover the vaso-motor changes.—*Rep.*]

4. *Leegard on the Reaction of Degenerating Nerves and Muscles.*—The author describes (*Arch. für Klin. Med.*, 1880, and *Brain*, Jan. 1882) the results of his experiments on degeneration of nerve, both from the histological and the physiological point of view. The reader is referred elsewhere for a fuller account of the matter. After a ligature has been applied to the nerve of a rabbit so as to destroy the continuity of the axis and myelin only, the electrical excitability of the nerve dwindles and disappears on the third day. Voluntary motion reappears before electrical excitability. With reference to the latter, the author notes that reaction to galvanism often precedes reaction to faradism, and has observed qualitative alterations of the formula. With referenee to muscle, faradic inexcitability is observed in about four days. Galvanic inexcitability diminishes in this sense, that the amplitude of the contractions do not keep pace with the increase of current strength. The A.C.C. approximates the K.C.C., but was never seen to overtake it. The opening contractions disappear, but H.O.C. was never found greater than K.O.C. The mechanical superexcitability, characteristic of human muscle separated from its nerve-centre, has not been observed by the author.

5. *Bastelberger on the Reaction of Degeneration.*—The author (*Arch. für Klin. Medicin.*), experimented on twelve rabbits. The sciatic nerve was carefully divided (under the antiseptic spray), and the reactions observed both through the skin and by direct stimulation of the muscles and nerves. The results fully confirmed Erb's description of the reactions of degenerating nerve and muscle as observed on the human subject.

6. *Adamkiewicz on Isogalvanic and Isofaradic Reactions.*—The author (*Charité Ann.*, Band v) describes a case of bulbar paralysis, in which the reactions of the muscles were very peculiar. Some did not contract to the faradic current, which did normally to the galvanic current. In another case (recovery from typhus), the tibiales antici responded to the stimulus of the will, and also to the faradic current, but not to the strongest galvanic stimulus. These reactions he proposes to call isogalvanic and isofaradic respectively ; and concludes from these facts that the muscular response to electricity is an independent function of the contractile substance. [Such sweeping generalisations from slender data are premature.—*Rep.*]

7. *Rumpf on the Treatment of Locomotor Ataxy with the Electric Brush.*—The author (*Neurol. Centralb.*, No. 1, 1882) describes a case of ataxy of eleven years' duration, in which counter-irritation along the spinal column by means of the faradic brush relieved the symptoms in a remarkable manner. The patient, who was shown to the Dusseldorf Medical Society, had been subject, during the whole period, to severe lancinating pains, to which 'crises gastriques' had been superadded in the course of the disease. Sensation was impaired and altered in hands and feet. The gait was typically ataxic, as well as the finer movements in both upper and lower extremities. There was also bladder disturbance, absence of knee-jerk and plantar reflex, feeling of extreme fatigue, etc. Dr. Rumpf determined to test the effects of cutaneous excitation in this case, and

accordingly submitted the patient to the effects of the faradic brush, applied every other day for ten minutes along the spine. A diminution of the symptoms was forthwith observed. After five applications the pains had disappeared. The serious disturbances in the legs also showed signs of improvement. After a month's treatment, the ataxy was distinctly less. Galvanisation of the spine was then resorted to on the off days, with the result that, in another month's time, the patient resumed his occupation. The improvement had persisted up to the day on which he was exhibited by Dr. Rumpf (*i.e.*, thirteen months). The knee-jerk was, however, still absent. In another case, the patient, who had had syphilis twenty years previously, gradually developed symptoms of lancinating pains, anæsthesia, and paræsthesia in the legs. Motor disturbances supervened; ataxy, titubation (especially in the dark), irregular micturition. On examination, there was no absence of tendon and skin reflexes, but the muscular sense was deficient, and the sense of pain delayed in transmission. The galvanic current and antisyphilitic treatment had no effect. The faradic brush, used as in the preceding case, rapidly brought about a considerable improvement in most of the symptoms, so that, up to date (two years), patient has been able to resume his ordinary occupations with comfort. The author has tried the brush in a series of cases, which will be published after sufficient time has elapsed to allow judging of the results. The treatment is of no value in some cases, and positively contra-indicated in others. Perhaps anæsthesia and pain in disease of not too long standing are the symptoms which yield the chief indication for its use.

8. *Engelhorn on General Faradisation.* — The author relates two cases (*Centralbl. für Nervenheilk*, 1881) in which the plan of treatment advocated by Beard and Rockwell yielded excellent results. The first was one of general debility and depression in a girl suffering from epilepsy. The symptoms (headache, vertigo, palpitation, dyspepsia, insomnia, etc.), rapidly subsided, and the general nutrition was greatly improved after a dozen applications (two or three weekly), though the epileptic condition was not materially altered. The second case is one of hystero-melancholia, in which the accompanying symptoms were similar to those just mentioned. The same treatment had a most beneficial effect. The author insists upon the sense of comfort derived from the very first applications of the current.

9. *Paul on the Faradic Bath.*—The author (*Prog. Méd.*, 1880, p. 34) has made experiments on the value of the faradic bath in the treatment of various tremors chiefly. He uses the primary current (extra current), which is conducted to two plates immersed in the water, one (positive pole) at the head, the other at the feet. The cases in which the treatment was found beneficial were mercurial and alcoholic tremors, and the tremors of spinal irritation and disseminated sclerosis. Paralysis agitans was relieved. In chorea the results were not uniform. Locomotor ataxy was not improved; on the other hand, a case of partial paraplegia recovered.

10. *Fischer and Schultze on the Electric Reactions in Dementia Paralytica.*—Fischer and Schultze (*Arch. für Psych.*, Band xi) find that the electrical reactions of dementia paralytica, even when considerable cerebro-spinal degenerations are present—the anterior horns and roots being intact—are not materially altered. Svetlin had asserted that in all such cases there was increased excitability, diminished electrical resistance of the tissues, and qualitative alteration of the polar formula. These assertions the authors have no difficulty in showing to be erroneous. Their general conclusion is, that electrodiagnosis is of no avail to prove spinal alterations in the disease.

11. *Möbius on Electro-Sensitive Persons.*—The author (*Memor.*, 1881) thinks that persons who are readily influenced by electrical current, displaying, for instance, phenomena of sleepiness, hunger, cough, salivation, eccentric sensations during or after galvanisation, are more readily amenable to electro-therapeutical measures than those who are less readily influenced. [Perhaps in the latter, who bear much stronger currents, a more energetic treatment is indicated.—*Rep.*]

12. *Mann on Paralysis Agitans.*—The author relates (*New York Jour. of Nervous Diseases*, 1881, No. 1) a case of so-called paralysis agitans, more probably, however, of emotional nervousness or hysteria, characterised by generalised tremor, in which the patient was 'cured' by central galvanisation, and general faradisation, together with bromide of potassium and hyoscyamine.

13. *Morton on Static Electricity.*—The author (*New York Med. Record*, April 1881) has tried the therapeutic value of this agent, and comes to the conclusion that it is of equal value to faradism and galvanism, or superior to them in certain conditions, such as anæsthesia. It is useful in hemiplegia of long standing. Long and strong sparks to the spine are useful in paraplegia. Positive charging acts as a 'tonic medicine'. Besides conditions of paralysis, spasm, neuralgia, static electricity benefits subacute or chronic rheumatism in a high degree. An important factor in its curative influence is the reflex stimulation from the cutaneous nerves. The author speaks highly of his method of obtaining 'an interrupted static induction current from a frictional electrical machine' as particularly useful.

14. *Löwenfeld on the Electrical Treatment of Angina Pectoris.*—The author relates (*Aertzl. Intelligenzbl.*, 1881, No. 39) a case of angina pectoris in which galvanisation proved beneficial. The patient, a man, aged 47, was subject to attacks of the disease occurring every month or two. These were characterised by excited respiration, oppression, small frequent pulse, sternal pain radiating in the left arm, convulsive tremors of the limbs, and lasted about one hour. The heart was normal. The constant current was applied for one minute to each side of the neck along the course of the pneumogastric. The sense of oppression was immediately relieved. Ten such applications in the course of three weeks were followed with complete freedom from the attacks during more than two years.

A. DE WATTEVILLE.

MEDICINE.

RECENT PAPERS.

1. COCKLE.—Typhoid Fever attended with Extensive Laceration and Perforation of the Rectum. (*Lancet*, Feb. 1882, p. 178.)

2. ALEXANDER.—Cure of Epilepsy by Ligature of the Vertebral Arteries. (*Med. Times and Gaz.*, March 1882.)

3. LEDIARD.—Phthisis without Sputa. (*Med. Times and Gaz.*, April 1882, p. 328.)

4. COOK, H.—On Orthopnœa. (*Practitioner*, April 1882, p. 242.)

5. WEBBER.—Paraplegia from Functional Weakness. (*Boston Med. and Surg. Jour.*, Jan. 19, 1882.)

6. DRASCHE.—Diabetic Neuralgia (*Wiener Med. Woch.*, Nos. 1 and 2, 1882.)

7. STYCKLER.—Erysipelatous Bronchopneumonia. (*Gaz. des Hôp.*, No. 104, 1881.)

8. DANIN.—Sudden Death in Phthisis consequent on Entry of Air into the Vessels. (*Berl. Klin. Woch.*, No. 5, 1882.)

9. LEWINSKI.—Methods of Auscultation. (*Ibid.*, No. 6, 1882.)

10. POPOFF, T.—Embolism of the Coronary Arteries of the Heart. (*Vratch.*, No. 2, 1882, pp. 29, 30.)

11. LESENEVICH, B.—Febris Intermittens Larvata. (*Vracheb. Vedom.*, No. 4, 1882, p. 2951.)

12. PENNA.—Echinococci in the Lungs. (*Gaz. Med. Ital. Prov. Ven.*, No. 1, 1882.)

13. SAUNDBY.—Influence of Bright's Disease in Developing Latent Valvular Disease of the Heart. (*Lancet*, Jan. 21, 1882.)

14. KRETSCHY.—On Scurvy. (*Wiener Med. Woch.*, No. 52, 1881.)

15. RENNERT.—Hydrocephalus a Hereditary Sequence of Chronic Lead-poisoning. (*Archiv für Gynæk.*, Band xviii.)

16. STRUBING.—Paroxysmal Hæmoglobinuria. (*Deutsche Med. Woch.*, No. 1, 1882.)

17. FLEISCHER.—Paroxysmal Hæmoglobinuria. (*Berl. Klin. Woch.*, No. 47, 1881.)

18. MORRILL.—On Hæmoglobinuria. (*Boston Med. and Surg. Jour.*, 1882, No. 5.)

19. BOVELL-STURGE.—Complete Excavation of the Lung. (*Nice Méd.*, Feb. 1882.)

21. GUILLIOT.—A Case of Locomotor Ataxy. (*L'Union Méd.*, Jan. 10.)

22. SEÉ.—Trichinosis in Man.

23. GIBNEY.—Intermittent Spinal Paralysis. (*American Jour. of Neur. and Psych.*, vol. i, No. 1.)

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1. *Cockle on a Case of Typhoid Fever attended with Extensive Ulceration and Perforation of the Rectum.*—Dr. John Cockle, in the *Lancet*, Feb. 1882, p. 178, reports a case of a woman aged 28, who was admitted into hospital in the second week of the disease. In the fourth week, during a severe attack of cough, she first noticed severe pain at the lower part of the abdomen, and died comatose in twenty-four hours. At the *post mortem* examination, the small intestines, three feet from the ileo-cæcal valve, contained traces of healed typhoid ulcers; and lower down, among Peyer's patches, were numerous ulcers. In the whole length of the colon were many ulcers, and the muscular coat was extremely brittle, and friable. In the sigmoid flexure the ulcers were numerous and smaller, and a large one had perforated and caused death, the rupture taking place during the violent cough.

2. *Alexander on the Cure of Epilepsy by Ligature of the Vertebrals.*—In the *Med. Times and Gaz.*, March 1882, p. 250, Dr. Wm. Alexander reports fifteen more cases, in which he has ligatured one or both vertebral arteries with great advantage. [*Vide* LONDON MEDICAL RECORD, Jan. 1882, p. 14.]

3. *Lediard on Phthisis without Sputa.*—Dr. H. A. Lediard, in the *Med. Times and Gaz.*, April 1882, p. 328, gives the history of two cases, men aged respectively 53 and 29, in whom, during the whole course of their illness, there was never any expectoration. It was a remarkable coincidence that both lived exactly four months from the commencement of the disease. In neither was there any hæmoptysis, and scarcely any cough. Unfortunately, in neither was a *post mortem* examination possible. Dr. Lediard compares such cases to the destructive process in the joints known as 'caries sicca'. The absence of sputa is evidently not at all a favourable sign in this form of disease.

4. *Cook on Orthopnœa.*—Dr. Henry Cook, in the *Practitioner*, April 1882, p. 242, indicates the cause of the loss of arterial tonus that causes orthopnœa in certain cases when in the recumbent posture. On one occasion, Dr. Cook himself was the victim of a severe attack of otitis, the agony of which compelled him to pass the whole night sitting erect, in which posture alone was the pain at all endurable. As the night wore on, he wished to rest his back with pillows, but instantly the throbbing of the vessels was intense on account of loss of arterial tonus. It seems that the prone position itself was not the cause of loss of tone, but the support afforded to the body, muscular tension being removed. To test this theory, a student was placed prone on three chairs, and a sphygmographic tracing taken, the body being completely at rest. The central chair was then removed, and another tracing of the radial pulse taken, when the traces exactly resembled those obtained in the upright posture. It is, therefore, clear that the variation in arterial tonus is due not to posture only, but to the exertion of muscular force; and hence the reason why relief is obtained in orthopnœa by the erect posture and by the violent muscular efforts which many asthmatics make. R. NEALE, M.D.

5. *Webber on Paraplegia (Paraparesis) from Functional Weakness.*—Dr. Webber (*Boston Med. and Surg. Jour.*, Jan. 19, 1882) has described three cases of loss of motor power in the lower extremities, all occurring in women, and apparently unconnected with serious organic lesions in the spinal cord or other portions of the nervous system. One of them was a case of 'spinal irritation', with much tenderness over the whole spine and epigastrium, slight tremor of hands, increased patellar tendon-reflex on the left side, the walk being feeble, and the patient inclined to fall with the eyes shut. There was a history of long continued ill-health, viz., 'lung-fever' (?), typhus, and typhoid, rheumatic and intermittent fever, and spinal meningitis, together with several accidents. Whether she really had spinal meningitis appears doubtful, while great muscular debility after typhoid fever is not uncommon. She recovered, apparently under the influence of dry-cupping. In the second case, an attack of scarlet fever at five years of age left the patient weak, and she became, ultimately, entirely unable to walk, stand, or sit, or even to hold her head up; yet sensation was not affected, and the faradic response of the muscles was normal. The state of the tendon-reflexes is not mentioned. She had also kidney-disease, as evidenced by the presence of albumen and granular casts in the urine. She recovered to a great extent under the influence of iron, massage, electricity, and steam-baths. This was, no doubt, a case of nervous exhaustion after fever, and aggravated by over-exertion. In the third case, it appeared doubtful whether it was functional or one of myelitis; but the result showed that it was of the former kind. It occurred in a woman who had worked a sewing-machine with her foot for twelve years, and had also to take care of her sick children, before the commencement of her illness. The seat of the disorder may be either the muscular or the nervous system. Muscular fibres may be so overtaxed as not to recover their normal condition in the time allowed for rest; they then undergo degeneration, or are too easily fatigued. This degeneration, however, must be of a slight character, as it is expressly stated that the faradic response of the muscles was normal. The diagnosis between myelitis and func-

tional debility is not always easy, but of course very important; and Dr. Webber relies a good deal here on the absence or presence of tenderness in the spine; the former being met with in myelitis, and the latter in functional affections. Also, sensation is less affected in spinal irritation than in myelitis; there is rather paresis than paralysis; but the condition of the bowels and the bladder cannot be much depended upon, as it may be affected in the earlier stages of myelitis, and there may be slight disturbance of these organs in nervous exhaustion. Absence of wasting of muscles distinguishes the affection from poliomyelitis, and presence or exaggeration of tendon-reflex from ataxy. In some patients the emotional element is prominent, and they easily shed tears. The best treatment seems to be rest, electricity, massage, cupping or the actual cautery applied to the back, iron, quinine, and strychnia. Recovery of strength is slow, and treatment of severe cases must extend over months.

JULIUS ALTHAUS, M.D.

6. *Drasche on Diabetic Neuralgia.* — Professor Drasche (*Wiener Med. Woch.*, Nos. 1 and 2, 1882; *Prag. Med. Woch.*) adds two cases of symmetrical neuralgia in diabetic patients to those previously recorded by Worms. The association of severe neuralgia of the peripheral parts of nerves (especially of the sciatic and inferior dental nerves) with glycosuria, has already been well observed; but, until lately, observations have been wanting on the symmetrical occurrence of certain forms of neuralgia in diabetes. In Worms' cases, symmetrical neuralgia of similar points in homologous nerves (sciatic and inferior dental) was found to be in direct proportion with the glycosuric state, and, resisting all ordinary remedies for neuralgia, was alone relieved by strict antidiabetic diet. These forms of neuralgia are some of the most painful, and Worms places them in the category of diathetic neuralgiæ, such as are apt to occur in gout, lead-poisoning, etc. In Dr. Drasche's cases, one of symmetrical and the other of unilateral neuralgia, the severity of the pain was in direct proportion with the amount of sugar in the urine. In one case, regular exacerbations of pain took place after meals. The writer comes to the conclusion that a form of neuralgia may occur in diabetes, which has its origin solely in the toxic effect of the sugar upon the peripheral nerves; that such a form is more frequently symmetrical than unilateral, and may occur with greater or less degrees of glycosuria, the intensity of the pain varying with the quantity of the sugar, and being relieved only by the restricted diet. Any persistent neuralgia, therefore, which resists ordinary treatment, should arouse a suspicion of diabetes.

7. *Stackler on Erysipelatous Bronchopneumonia.* —Dr. Stackler (*Gaz. des Hôp.*, No. 104, 1881) records a case observed by him in the Hôtel-Dieu, of wandering erysipelas affecting the face, pharynx, neck, back, etc., accompanied by an acute pulmonary affection. Beginning with coryza and angina, the disease progressed very rapidly, in three days developing the signs of partial consolidation of the base of the right lung and bronchopneumonia of the left, followed by as rapid a stage of resolution and a good recovery. Erysipelatous bronchopneumonia was diagnosed, the lung-affection being regarded as a result of the spreading, by continuity, of the process affecting the external parts. Dr. Damaschino saw three such cases, in one of which the diagnosis was fully confirmed by the necropsy.

8. *Dunin on Sudden Death in Phthisis Consequent upon Entry of Air into the Vessels.*—Dr. Theodor Dunin of Warsaw (*Berl. Klin. Woch.*, No. 5, 1882) relates the details of a case of sudden death from this cause. The patient, aged 22, suffered from phthisis, with multiple excavation of both lungs. Expectoration was scanty, purulent, and offensive. After three weeks in hospital he suddenly fell down, and died shortly afterwards without convulsions or any other symptoms. The necropsy (twenty-four hours after death) showed tubercular disease, with one cavity in the right and three in the left lung. Of these latter, two were filled with cheesy masses, and the third, situated deeply in the lower lobe, contained a small quantity of frothy blood. The heart was slightly dilated, and its left side filled with red fluid blood containing innumerable tiny air-bubbles. In the right ventricle and in all the larger systemic arteries, as well as in the vena cava and the pulmonary vein, a similar appearance was found. All the arteries and veins of the brain were dilated and nearly filled with air. The *post mortem* changes were not marked, and none of the parenchymatous organs contained gas. Dr. Dunin points out that the entry of air must have taken place in the small cavity which contained frothy blood, and that a branch of the pulmonary vein must have conveyed it, although no open vessel could be traced, since a vein alone would present the necessary conditions for each entry, being easily emptied during the diastolic contraction of the heart. The very slight hæmorrhage is also explained by this; had an artery given way, the hæmorrhage must have been far greater. Air, having been found in the right ventricle, must have completed the vascular circle, but it is probable that death took place at the same instant. The immediate cause of death was anæmia of the brain. No explanation is, however, afforded as to the cause of so rare an occurrence; but a suggestion is thrown out that its rarity would become less striking, if a more careful examination were made in all cases of sudden death in phthisis.

9. *Lewinski on Methods of Auscultation.*—Dr. Lewinski (*Berl. Klin. Woch.*, No. 6, 1882) has compared, for auscultatory purposes, the solid and the tubular stethoscopes respectively. He comes to the conclusion, that immediate auscultation gives the most correct results, but that for mediate auscultation the tubular instruments are preferable, especially in conveying the more delicate of the morbid pulmonary sounds. The sources of error arising from the resonance in the air-space itself may be lessened by making the perforation as small as possible, the tube not too long, and the ear-piece not too much excavated. He recommends a conical shape for the chest-piece.

E. CLIFFORD BEALE, M.B.

10. *Popoff on Embolism of the Coronary Arteries.* —Dr. Popoff (*Vratch*, 1882, No. 2), describes the following case of this rare affection. The patient, a sailor, aged 53½, had had an apoplectic attack about one-and-a-half years previously, at which time aortic insufficiency had been recognised. One morning there suddenly appeared sickness and vomiting. When immediately seen by the author, the patient bore an appearance of extreme horror, and was sitting, being unable to lie down. His extremities were cold and covered with clammy perspiration; his lips were livid. Examination showed complete absence of the pulse in all accessible arteries, and neither apex-beat nor heart-sounds could be detected. The ear, applied to the cardiac region, could hear only a kind of cardiac tremor, which was very like the sound of a vibrating steel-plate. There

was no loss of consciousness. Respiration was regular and rhythmical, not exceeding eighteen to twenty. Twenty hours after the first symptoms, the patient was dead. This affection was diagnosed during life, though the author had never before met any similar case in his practice. The alternative in diagnosis lay between embolism of a branch of a basilar artery, and embolism of the coronary arteries of the heart. Dr. Popoff accepted the latter alternative, on the ground (1) of the regularity and rhythmic character of the respiration; and (2) of the enfeeblement of the heart's action, which was transformed into simple oscillatory movements. Necropsy confirmed the diagnosis. There were found sclerosis of all the blood-vessels at the base of the brain; anæmia of the brain; venous congestion of the cranial bones and meninges; old apoplectic foci in the stage of softening, in the right corpus striatum, and the posterior horn of the right lateral ventricle; pericarditis, endocarditis, and myocarditis; ossification of both coronary arteries of the heart, with complete thrombosis of their longitudinal branches; œdema of the lungs, and venous hyperæmia of the spleen, the liver, and the kidneys. [The cardiac symptoms observed in the case are in strict harmony with the results of Samuelson's experiments on ligature of the coronary arteries in rabbits. See London Medical Record, Jan. 1881, p. 36.—*Rep.*]

11. *Lesenevich on Febris Intermittens Larvata.*—Dr. Lesenevich (*Vracheb. Vedom.*, 1882, No. 4), who practises in a malarial town, Piriatin, where intermittent fever is constantly endemic, records that last winter he very often met cases of febris larvata, characterised by typical periodical paroxysms of neuralgic pains in the region of the fifth nerve. A single dose of eight or ten grains of quinine usually cut short the affection.

V. Idelson, M.D.

12. *Penna on a Case of Echinococci in the Lung.*—Dr. Penna records an interesting case of hydatids in the lung (*Gazzetta Medica Italiana Prov. Venete*, No. 1, 1882). The patient was a man aged 32, who presented himself at the hospital complaining of severe pain in the left side of the chest, with cough, occasional bloody expectoration, and dyspnœa. The physical signs were relative immobility of the right side of chest, with absolute dulness on percussion in the supraclavicular and subclavicular regions, together with occasional mucous râles. Some days after the case had been seen for the first time, the patient again presented himself, stating that, during a paroxysm of coughing, he had expectorated about a pint of watery fluid, together with a large piece of membrane, which was found on examination to be the mother-cyst of an hydatid tumour. The abnormal physical signs after this rapidly ceased, and the patient was able to leave hospital within a fortnight.

Litton Forbes.

13. *Saundby on the Influence of Bright's Disease in developing Latent Valvular Disease of the Heart.*—The author (*Lancet*, Jan. 21, 1882) has observed that many cases of organic disease of the heart remain for long latent if no fresh attack of endocarditis come on, and if pregnancy and renal disease can be avoided. He records the case of a man who had acute rheumatism twenty years before being seen by him, but who, a few months before admission to hospital, had walked 105 miles in twenty-four hours. For three months he had suffered from polyuria, and on admission he had anasarca, cardiac murmurs, and pulmonary œdema. On *post mortem* examination, there were obliteration of the pericardial cavity, mitral and tricuspid stenosis, with dilatation and hypertrophy of the left ventricle; the kidneys were granular and fatty (mixed form). This is a good example of the influence of renal disease in causing a break-down of the circulation, and rapid failure of the patient's system. No one can imagine that the renal disease caused the stenosis; and the only conclusion is that the disease of the valves was latent for twenty years, and might have remained so much longer, if the renal affection had not made its appearance. G. A. Gibson, M.D.

14. *Kretschy on Scurvy.*—This writer has, in the course of nine years, observed sixty-four cases of scurvy, and finds that in a series of patients there was a darkness of the urine without diminution in quantity, and without the presence of fever (*Wien. Med. Woch.*, 1881, No. 52). During improvement, the urine became gradually clearer. The urine in these cases was acid, showed no albumen or blood-colouring matter, but contained a larger amount of urea. From this, the observer argues that scurvy commences with an increased destruction of the blood-corpuscles, which process continues so long as the disease is on the increase.

James Anderson, M.D.

15. *Hydrocephalus as a Hereditary Sequence of Chronic Lead-Poisoning.*—Dr. B. Rennert of Frankfort (*Arch. für Gyn.*, Band xviii, Heft 1), from observations of eleven families, with seventy-nine children, at a village in Hesse, where the larger part of the inhabitants are employed in the glazing of earthenware, and who suffer largely from chronic lead-poisoning, attributes to this cause the high mortality, amounting to 50 per cent. of the children during the first five or six years of life; and the survivors suffer from hydrocephalus, or an enormous size of the head, but without any symptoms of rickets, nor do they show any special tendency to convulsions. Edward F. Willoughby.

16. *Strubing on Paroxysmal Hæmoglobinuria.*—Dr. P. Strubing of Greifswald (*Deutsche Med. Woch.*, No. 1, 1882) has described the case of a man, aged 29, in whom the first symptom of the attack was a greyish coloration of the face. The attacks in which dark-coloured urine was passed always occurred in the morning, and usually after violent muscular exertion. The symptoms after the attack were pains in the enlarged spleen and liver, dyspnœa, palpitation, muscæ volitantes, tinnitus, giddiness, and dulness. There was no sensation of cold or heat. There was no evidence of cold as a factor in producing the attacks. The blood examined shortly after an attack, was about normal, and contained only a few pale small and dotted corpuscles. The urine passed during the attack contained an abundant sediment of detritus, finely granular and hyaline cylinders the latter with a few renal epithelial cells adherent; also some yellow-stained epithelium from the kidney and bladder, crystals of uric acid, and oxalate of lime, needle-like crystals of hæmatoidine, and yellowish-red masses of hæmatoidin. After the paroxysms, the urine contained albumen, and gave the spectroscopic characters of methæmoglobine; it also contained excess of biliary acids. During the attacks the patient was much prostrated; the nitrogen excreted by the urine was very little; the phosphoric acid excreted was less than the normal amount.

17. *Fleischer on Paroxysmal Hæmoglobinuria.*—Dr. R. Fleischer (*Berl. Klin. Woch.*, No. 47, 1881) describes a case of paroxysmal hæmoglobinuria, in which the attacks were not related in any way to cold, but were invariably brought on by walking,

while other even more laborious exercise did not produce them. There was little general derangement, and no change in the pulse or temperature, or the state of any internal organ. The serum of a blister formed during the attack contained hæmoglobin.

18. *Morrill on Hæmoglobinuria.*—Dr. F. Gordon Morrill (*Boston Med. and Surg. Jour.*, No. 5, 1882) describes a case of paroxysmal hæmoglobinuria in a man who had contracted malarious fever in California. The urine during the attacks was of specific gravity 1025, faintly acid, albuminous, deposited amorphous granular matter, containing a few granular casts, but no blood-discs nor oxalates. He quotes Murri as having cured two cases by antisyphilitic remedies. The treatment in this case consisted of quinine and iron.

19. *Bovell-Sturge on Complete Excavation of the Lung.*—Dr. Emilie Bovell-Sturge has drawn attention (*Nice Méd.*, Feb. 1882) to certain cases of pulmonary disease in which, on *post mortem* examination, one lung, usually the left, has been found collapsed, adherent, with great thickening of the pleura, and the whole of its substance excavated so as to form a vast cavity, traversed by fibrous bands representing the interlobular connective tissue and large vessels. These cases did not present the general phenomena of phthisis during life; while their course was extremely slow. The author thinks the excavation is probably effected by the formation in the first place of a dilated bronchial cavity, and by the gradual erosion of the walls of this cavity by the irritation of the contained fluid.

20. *Guelliot on a Cause of Locomotor Ataxy.*—M. Guelliot (*Union Méd.*, Jan. 10, 1882) has met with two cases of women, manifestly hysterical, workers at the sewing machine, who complained of pains, which, beginning in the foot, had successively invaded the leg, thigh, and finally the trunk. Motor inco-ordination did not appear till after a long interval. On investigation, he found that ataxy had been seen relatively frequently among those who worked with the sewing machine. Vernois, Espagne, Decaisne, and Taget had regarded pedal machines as the cause of nervous troubles in the lower limbs. Dr. Webber (*Boston Med. and Surg. Jour.*, Jan. 19, 1882) has published the case of a woman who had worked at a sewing machine for twelve years, and entered the City Hospital, with great weakness in the lower limbs, pains in the legs, numbness of the feet and legs; the patellar tendon reflex-was abolished; walking was difficult, especially with the eyes closed. Two or three months later, she was much better.

21. *Seé on Trichinosis in Man.*—Professor Germain Seé (*Jour. de Méd.*, 1882), in a recent clinical lecture, after referring to the discovery of Zenker of Leipsic in 1860, pointed out that there are four forms of trichinosis observed in man; gastro-intestinal, rheumatoid, œdematous, and typhoid. The first is characterised by diarrhœa, vomiting, and a resemblance to cholera, from which it may be distinguished by the absence of rice-water stools, and the presence of excessive and profuse perspiration, and by considerable muscular prostration. In the rheumatoid form there are muscular pains, with weakness and swelling of the muscles, later on contraction, with all the functional troubles resulting from an affection of the muscles of the larynx, pharynx, and chest. The œdematous form is more characteristic; unilateral œdema of the face, without albuminuria or heart-disease, with great prostration, gastro-intestinal symptoms and muscular pains, being nearly pathognomonic. The typhoid form resembles enteric fever, differing from it chiefly by the profuse sweats, the œdema of the face, and the rapid fall of the fever. The symptoms of the four forms ordinarily coincide more or less, so that clinical picture is the result of their combination.

22. *Gibney on Intermittent Spinal Paralysis.*—Dr. V. P. Gibney (*Amer. Jour. of Neurol. and Psych.*, vol. i, No. 1, 1882) has published two cases of intermittent, or, rather, it appears to us, recurrent paralysis in children, who had been exposed to malarial influences, and which recovered under the use of quinine. In the first case there were five attacks at intervals of one or more months, and lasting from one week to six months. There was distinct wasting of the thenar and hypothenar muscles, with flabbiness and weakness of the suprascapular muscles, the flexors, and extensors of the fingers, in both upper extremities; in the lower extremities, the flexors and adductors were wasted, the extensors of the leg were wasted, there was no power to flex the foot, and extension was far from normal; the paralysis was symmetrical. In the second case, there were three attacks; there was no wasting, but much weakness and flabbiness of the muscles; both upper and lower extremities were affected. His first attack got well in a few weeks without medical aid; the second, a year after, was treated in hospital, and lasted six months. The third attack was six months later, and in it he died; but Dr. Gibney did not see him, and there was no necropsy; its duration was two weeks. [These cases differ from the intermittent malarial paralysis mentioned by Erb, in which the paralysis comes on regularly, and passes off after a few hours like an attack of ague, and may be arrested by quinine.—*Rep.*] ROBERT SAUNDBY, M.D.

SURGERY.

RECENT PAPERS.

1. GALLOZZI.—A Rare Disease of the Parotid. (*Giorn. Intern. delle Scienze Med.*, No. 1, 1881.)

2. NEGRETTO.—The Radical Cure of Hydrocele by Intravenous Injections of Chloral Hydrate. (*Gaz. Med. Ital. Prov. Venete*, Jan. 14, 1882.)

3. GROSS.—Carcinoma of the Breast. (*New York Med. Gaz.*, Feb. 11, 1882.)

4. MORTON.—The Uses of Nerve-Stretching. (*New York Med. Record*, March 4.)

5. THIERSCH.—The Employment of Nerve-Stretching. (*Boston Med. and Surg. Jour.*, No. 9, 1882.)

6. BLUM.—On Nerve-Stretching. (*Le Prog. Méd.*, No. 11, 1882.)

7. ARTAUD and GIBSON.—Nerve-Stretching. (*Revue de Chir.*, Feb. 1882.)

8. COPPEZ.—Nerve-Stretching for Facial Neuralgia. (*Annales d'Ocul.*, Jan. and Feb. 1882.)

9. SHRADY.—The Treatment of Fracture of the Patella by the Weight and Pulley. (*New York Med. Record.*)

10. STEVENSON.—Mosquito Bites. (*Edin. Med. Jour.*, Feb. 1882.)

11. PICARD.—Hot Water in Blennorrhœa. (*Phil. Med. and Surg. Rep.*, Jan. 14, 1882.)

12. KRETSCHMAR.—Aspiration of the Gall-Bladder. (*Proceedings of Med. Soc. of County of Kings*, Sept. 1881.)

13. BOUILLY.—Acute Mediastinitis after Excision of Hypertrophic Goître. (*Revue de Chir.*, No. 1, 1882.)

14. WÖLFLER.—The Influence of Esmarch's Bloodless Method on the Absorption of Fluids. (Langenbeck's *Archiv*, Band xxvii.)

15. WOLFF.—Bloodless Operations. (Langenbeck's *Archiv*, Band xxvii.)

16. JURASZ.—The Treatment of Excessive Deviation of the Nasal Septum. (*Berl. Klin. Woch.*, No. 4, 1882.)

17. SUBBOTIN.—Treatment of Hæmorrhoids by Forcible Dilatation of the Anus. (*Mejdun. Clinica—International Clinics*, No. 1, 1882, pp. 22-25.)

18. SYMONDS.—A Case of Osteitis Deformans. (*Guy's Hosp. Reports.*)

19. HARRISON.—The Radical Cure of Varicocele. *Lancet*, March 1882, p. 477.)

20. BOND.—Death after Operation for the Relief of Strangulated Hernia. (*Lancet*, March 1882, p. 478.)

21. HEATH.—Fractured Patella. (*Brit. Med. Jour.*, March 1882, p. 422.)

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1. *Gallozzi on a Rare Disease of the Parotid.*—Dr. C. Gallozzi relates, in the *Giornale Inter. delle Scienze Med.*, No. 1, 1881, the case of a soldier, aged about forty, of strong and robust constitution, who had an enlargement in each parotid region. The swelling varied in size, and was reduced by pressure with the hand; but at the same time there appeared in the mouth, opposite the third molar tooth, a dense white pearly material, without odour, and of gummy consistence. The patient had been for several whole days exposed to cold and damp, when he began to have difficulty in mastication, so that he was able to take only soft food. The pain was relieved by the use of ointment of hemlock and iodide of potassium; but the swelling continued to increase whenever the jaws were much moved. The diagnosis was that the affection was a suppurative catarrh of the parenchyma of the parotid, originating in the primary acini of the gland. A cure was obtained under the prolonged internal use of iodide of potassium.

A. HENRY, M.D.

2. *Negretto on the Radical Cure of Varicocele by Intravenous Injections of Chloral-Hydrate.*—Dr. Angelo Negretto records (*Gaz. Med. Ital. Prov. Venete*, Jan. 14) two cases of varicocele, in which he succeeded in obtaining a speedy and permanent cure by intravenous injections of chloral-hydrate. In the first case, the patient was aged 28; the varicocele was situated on the left side, turgid, and painful. Dr. Negretto injected, with a Pravaz's syringe, in four different places, a solution of chloral-hydrate, of 7 grains to the ounce. At once, a small hard knot could be felt in the lumen of the vein. Within a few hours, a mild attack of orchitis supervened, which yielded readily to ordinary remedies. The injection was repeated in one or two other spots, with the same result of again inducing orchitis, which, however, was of the mildest possible type. Six days later, all visible traces, both of the operation and the varicocele, had disappeared. Along the course of the spermatic vein a few hard small and indolent nuclei could be felt, which corresponded to the seats of puncture. The author remarks that in this case the obliteration of a few branches of the spermatic vein had evidently been sufficient to effect a cure. The second case occurred in an individual aged 23, in whom varicocele had existed six years. In its leading features it resembled the preceding. Five injections were used, with the result of producing a clot in the vein, followed by slight orchitis, with severe pains radiating from the spermatic cord over the pelvis generally. A week after the last operation the cure was complete; and, as the patient never returned, the author believes it was permanent.

LITTON FORBES.

3. *Gross on Carcinoma of the Breast.*—At a recent meeting of the New York Academy of Medicine (*New York Med. Gaz.*, Feb. 11, 1882), Dr. S. W. Gross read a paper on the influence of operations upon the prolongation of life and permanent recovery in carcinoma of the breast. From collected statistics and personal experience, the author is of opinion that life is often prolonged by operation, and that one case in fifteen is permanently cured. A single operation is not sufficient in all, or indeed in many, cases to secure these results. But repeated operations may be successful. For the operation itself, Gross recommends that the mamma be amputated, the skin dissected off the pectoral muscle, the tissues seared with the hot iron, the axillary space opened, and enlarged glands searched for and removed. Partial operations are worthless, and should be discarded. Death frequently occurs after operation from bad management of the axillary wound. In the discussion which ensued, in which many of the leading surgeons in New York took part, most of those who spoke agreed with the author that complete and repeated operations are sure to be successful in a certain, though small, proportion of cases.

HENRY T. BUTLIN.

4. *Morton and others on Nerve-Stretching.*—Dr. W. J. Morton read a paper at the New York Neurological Society (*New York Med. Record*, March 4, 1882), on nerve-stretching, and related the following cases: 1. Lateral sclerosis, both sciatics being stretched, with remarkable relief to all the symptoms; 2. Paralysis agitans, the left sciatic nerve being stretched with some improvement; 3. Athetosis, in which the ulnar and median nerves were stretched, with resulting abolition of the continuous compound movements, but some numbness of the hand and an occasional twitch of the thumb persisted; 4. Chronic transverse myelitis, in which stretching of both sciatic nerves was followed by immediate return of sensation in both lower extremities and much improvement generally; but this was only temporary, and the final result was negative; 5. Idiopathic sciatica, in which the sciatic nerve was stretched, and the patient was cured; 6. Reflex epilepsy, in which fits could be induced at will by touching the right side of the neck and shoulder; stretching the brachial flexus had diminished the number of the fits. In the discussion which followed, Dr. Wyeth said he had stretched both sciatics in a case of locomotor ataxy, with relief to the pains, but no benefit to the gait or inco-ordination. Dr. Gerster related a similar case with the same result. Dr. Beard suggested that it might do good in writers' cramp. Dr. Hammond said stretching both sciatic nerves had failed in the case of a lady to afford any relief, even to the pains; but in sciatica, nerve-stretching gave excellent results. This might be done as Billroth has suggested, by flexing the thigh upon the pelvis, keeping the leg perfectly straight; and this plan would probably supplant that of cutting, except in the case of large and fat men. Dr. Dana said he had found that powerful traction (over seventy pounds), on both sciatics of a twelve-pound dog, failed to move the cord appreciably, so that he was unable to admit the cord itself was stretched, as thought by some; a similar experiment on the human subject gave the same result.

5. *Thiersch on the Employment of Nerve-Stretching.*—Professor Thiersch of Leipzig (*Boston Med. and Surg. Jour.*, No. 9, 1882) has published, through Dr. G. L. Walton, four cases of nerve-stretching for diseases of the spinal cord, without any beneficial result whatever. The first was a case of spastic paralysis; both sciatic nerves were stretched. The

second was a case of spinal paraplegia, in which both sciatics were stretched. The third and fourth were cases of tabes dorsalis, and it is specially noted that the pains were not in the slightest degree lessened, either in frequency or in intensity.

6. *Blum and others on Nerve-Stretching.*—M. Blum (*Le Prog. Méd.*, No. 11, 1882) has presented a note to the Société de Chirurgie on two cases of stretching of the sciatic nerve, one for obstinate neuralgia, with complete success, and the other time for ataxy with lightning pains, without much result. He sought the nerve at the inferior border of the gluteus maximus. M. Gillette preferred the incision in the middle third of the thigh. From forty-three experiments he had made at Bicêtre, he found that a force of 45 kilogrammes might be used without fear of producing rupture of the nerve, but this amount of force was unnecessary, 18 to 20 kilogrammes being sufficient. M. Berger announced that he had failed to obtain a good result by nerve-stretching in case of ataxy, but that he had had great success in a case of Parkinson's disease (paralysis agitans). M. Larger had obtained a partial result in a case of ataxy; he had pulled the nerve towards the periphery and towards the cord.

7. *Artaud and Gilson on Nerve-Stretching.*—MM. Artaud and Gilson (*Rev. de Chir.*, Feb. 1882) give the following conclusions as to the pathology of this operation. 1. The nerves are extensible; this extensibility diminishes from the centre to the periphery, and its limits correspond to those of the normal movements of the limbs. 2. The degree of resistance of the nerves being known, there is no reason to fear rupture of the nerve during elongation. 3. At the same time, it is advisable not to exceed a force of 40 kilogrammes (80 lbs.) for the sciatic, and 20 kilogrammes (40 lbs.) for the nerves of the upper extremity. 4. The lesions produced by stretching (at first subperineural ecchymosis and rupture of the nerve-fibres, later ascending degeneration,) are analogous to those produced by a partial section. 5. Stretching acts on the conductors of sensation, their functions being instantly suppressed; but it respects the conductors of motion. 6. It acts on the centres (phenomenon of transference of sensibility). 7. It may be accompanied by trophic disturbances, with or without persistent anæsthesia.

8. *Coppez on Nerve-Stretching for Facial Neuralgia.*—Dr. Coppez (*Ann. d'Oculistique*, Jan.-Feb. 1882) has published a case of infra-orbital neuralgia of twenty years' standing cured by nerve-stretching. The anæsthesia which resulted remained for eight days only. The patient was a man aged 51.

ROBERT SAUNDBY, M.D.

9. *Shrady on the Treatment of Fracture of the Patella by the Weight and Pulley.*—The *New York Med. Rec.* refers to two cases of fracture of the patella recently at the Presbyterian Hospital, under the care of Dr. Geo. F. Shrady, which were being treated by the weight and pulley. Both fractures were transverse, were occasioned, as usual, by muscular violence, and the fragments were separated three-fourths and one and one-fourth inch respectively. The limbs were elevated on a single inclined plane, and two strong broad bands of adhesive plaster were applied diagonally to the anterior portion of the thigh, crossing each other just above the patella, and embracing a pad at the upper margin of the upper fragment. These bands terminated in loops on each side of the leg, and were attached to stout cords which passed to a foot-piece and over a pulley to the weights. The lower fragment was merely fixed by a bandage passed around the splint. Extension was made over the entire region of the quadriceps muscle, while the pad applied itself over the upper edge of the upper fragment, bringing it into apposition to the lower fragment. By these means the fragments were maintained in perfect apposition, without discomfort to the patient. Dr. Shrady prefers this method of treatment to any other that he has employed.

10. *Stevenson on Mosquito-Bites.*—Mr. Stevenson, of the Army Medical Department, says (*Edin. Med. Jour.*, Feb. 1882), regarding mosquito-bites, that the application which he has found most effectual is to smear the hands where bitten with a moist cake of soap, and allow the thin lather to dry into the skin. He has frequently resorted to this for relief, and has found that all itching and pain disappeared in ten or twelve minutes after the application was made, and did not again return. Besides being effectual, it has the advantage of being at hand and easy to use.

11. *Picard on Hot Water in Blennorrhœa.*—Dr. G. H. Picard of Topeka, Kansas (*Med. and Surg. Rep.*, Jan. 14, 1882), alleges that he has obtained very good results from the treatment of blennorrhœa with hot water in the following way. A small bulb-tipped catheter is inserted into the urethra, so that the bulbous extremity closes the mouth of the bladder. The free extremity of the catheter is connected by an India-rubber tube with an elevated vessel containing the hot water. The water finds egress through an opening between the small-sized catheter and the urethra. The temperature of the water should at first be about 90 deg. Fahr., gradually increased, with tolerance, to 100 deg. Fahr., or even to 115 deg. Fahr. Two sittings of at least fifteen minutes each are required. This treatment might be advantageously combined with local medication by medicating the water.

12. *Kretschmar on Aspiration of the Gall-Bladder.*—At a meeting of the Medical Society of the County of Kings (*Proceedings*, Sept. 1881), P. H. Kretschmar presented a paper on dilatation of the gall-bladder and its treatment by aspiration. He considered the use of the aspirator, in cases of enlarged and distended gall-bladder, perfectly safe, and, therefore, an operation that may be resorted to as soon as the diagnosis is made out, or one that may be utilised for the purpose of completing a diagnosis. He reported a case in which the patient was aspirated five times, and thirty-four and a half ounces of bile were removed within a month. At every operation the patient felt much relieved, and after the first operation the constitutional symptoms were much diminished in severity. Of course, this surgical interference did not take the place of, but only supplemented, the medical treatment of the case.

13. *Bouilly on Acute Mediastinitis after Excision of Hypertrophic Goître.*—In November last, M. Bouilly of Paris reported to the Société de Chirurgie (*Rev. de Chir.*, No. 1, 1882) a case of simple hypertrophic goître, of five years' growth, in a young woman who, for six months, had suffered from symptoms of compression on the side of the trachea, which were sufficiently pronounced to contraindicate interstitial injections of tincture of iodine. The tumour was of the size of an orange, and sent down a prolongation behind the sternum. On October 22, M. Bouilly removed the gland. An U-shaped incision was made along the upper margin of the sternum and the anterior margins of the sterno-mastoid muscles. The tumour had two

lateral prolongations, and one in the middle line, in close contact with the innominate veins. Some difficulty was experienced in dividing the close adhesions between the tumour and the trachea; the patient, however, lost but little blood during the operation. The wound was drained and dressed antiseptically. In the evening, the patient complained of pain and uneasiness behind the sternum. On the following day, this retrosternal pain increased, and descended towards the xiphoid appendage; and the patient suffered from dyspnœa. On the next day, there was very marked angina, the pulse was irregular, the heart-beats feeble and indistinct, and the respiration difficult and almost wholly diaphragmatic. The wound looked wel ,but the dressings had a fetid odour. Death took place sixty-five hours after the operation. At the necropsy, the raw surfaces of the wound were found covered by greyish pus, and behind the sternum was a diffused purulent deposit, extending to and covering the pericardium. This membrane presented marked changes on its surface, and its cavity contained a small collection of serous fluid. With the exception of some interstitial nephritis, there were no traces of any visceral disease. The removed thyroid tumour presented the characters of simple glandular hypertrophy. This was an instance of true diffused phlegmon of the anterior mediastinum, the characters of which affection, M. Bouilly states, have not hitherto been described. It commences suddenly, and usually follows some operation in the deep-sided parts of the cervical region. M. Bouilly has observed one other case after extirpation of a malignant tumour which had involved the deep-seated glands of the neck. In this instance, the first symptoms commenced on the same evening; death occurred at the end of the second day; and, after death, lesions similar to those of the first case were discovered. The principal symptoms of this affection consist in rapid elevation of temperature, very intense pain behind the sternum, which pain is increased during inspiration, an almost exclusively diaphragmatic respiration, dyspnœa, which is not to be accounted for by any auscultatory signs, slow cardiac pulsations, and a feeble and irregular pulse. The face becomes livid, the patient becomes very restless and uneasy, and finally death occurs, after algidity, delirium, and fall of temperature. This affection, M. Bouilly states, is analogous to the diffused pelvic cellulitis which is occasionally developed after certain operations on the rectum, and presents the characters of acute septicæmia. The cause of this terrible complication is probably to be found in the general condition of the patient. The patient, in one of M. Bouilly's cases, was a confirmed drinker; and the other was the subject of nephritis.

14. *Wölfler on the Influence of Esmarch's Bloodless Method on the Absorption of Fluids.*—From the results of experiments on animals with solutions of strychnia and ferro-cyanide of potassium, Dr. Anton Wölfler of Vienna has been led to the conclusion that, whilst any portion of a limb is constricted by Esmarch's elastic ligature, no fluid applied below the seat of constriction will be absorbed into the organism or even into the interior of the limb between the ligature and the extremity (Langenbeck's *Archiv*, Band xxvii, Heft 2). So long, then, as this ligature is in position, no poisonous action can be set up in the body by the absorption of carbolic acid or any other strong disinfecting fluid. The same rule, it is stated, applies to organic and septic fluids. On the other hand, immediately upon removal of the ligature, absorption from any open surface on the limb will take place more rapidly than it would do under normal conditions. On these grounds, the author advocates the plan of retaining the constricting ligature in any operation on a limb until all visible vessels have been secured, and the final dressing has been applied, or, at least, until the raw surface has been washed over with an antiseptic solution.

15. *Wolff on Bloodless Operations.*—Dr. Julius Wolff of Berlin, in a recent communication on the arrest of hæmorrhage during and after surgical operations (Langenbeck's *Archiv*, Band xxvii, Heft 2), points out that most of the anticipated dangers of Esmarch's method do not really exist. No instances have yet been recorded of such results from its application as plethora of internal organs, cerebral apoplexy, local inflammation, thrombosis, or gangrene. When persistent paralysis is met with as a result of constriction of a large nerve, it is usually found that the elastic band or ligature is composed of unsuitable material, or that it has been improperly applied. The danger, in cases of suppuration or sloughing, of putrid fluid, or unhealthy and softened tissue being driven into the circulatory system or the healthy structures, may be prevented by dispensing with the use of the elastic ligature, and by elevating the limb for a few minutes before applying the ligature. The most serious disadvantage attending Esmarch's method of constriction is the profuse parenchymatous bleeding, through temporary paralysis of the walls of the small vessels, which follows the removal of the constricting agent. Dr. Wolff describes the different attempts that have been made to prevent or guard against this result. In 1878, he proved that, during such operations on a limb as the removal of a sequestrum or the excision of a tumour, much blood would be saved by elevating this limb during the operation, and by its previous cooling through contact with moderately cooled air or water. He found that, by elevating the closed hand for a short time, he was able to lower its temperature by several degrees; and he stated that recent wounds, which, during elevation of the limb, remained almost quite dry, became at once flooded with blood after the limb had been laid in the horizontal position. After exposure of the upper extremity to air at a temperature of 42 deg. Fahr., or water at 48 deg. Fahr., such contraction of the small vessels results, it is stated, that, even when the arm is allowed to hang down, the thermometer grasped in the hand will not rise higher than 70 deg. Fahr., and the hand and forearm will remain pale and cold. In operations on limbs, including major amputations, Esmarch, after tying all large and visible arteries, applies a firm and constricting dressing, and then removes the ligature. König, after the large vessels have been secured, removes the ligature, elevates the limb, and then looks for the bleeding vessels before finally covering the wound or stump. Dr. Wolff advocates the plan of covering the extremity of the stump by firmly bandaged antiseptic dressings, after removal of the constricting ligature, and before the application of the sutures, and of retaining these dressings, with the limb elevated, for a period of fifteen or twenty minutes, and until the stage of vaso-motor paralysis has ceased. The end of the stump is then again exposed, and, after deligation of any vessels that may still bleed, the wound is drained, closed by sutures, and then dressed. Three cases of amputation in the thigh are recorded in which this method

was practised with success. The author recognises the objection on the score of too much delay in the operation, and of the necessity of keeping the patient under the influence of the anæsthetic for at least a quarter of an hour after the removal of a limb. It is pointed out, however, that very often after the removal of the constricting band in amputation, much time is taken up in looking for and securing a number of small but freely bleeding vessels.

16. *Jurasz on the Treatment of Excessive Deviation of the Nasal Septum.*—Professor Jurasz of Heidelberg, in a contribution to the *Berliner Klin. Woch.*, No. 4, 1882, discusses the treatment of those forms of deviation of the nasal septum in which the curvature is so pronounced as to cause occlusion of one or both nasal cavities, and thus to impair the smell, to prevent the discharge of secretion, and to interfere with speech and respiration. Curvature of the septum, even in its extreme forms, very rarely involves the osseous portion; those cases, of course, being excepted in which the deviation is the result of fracture. The cartilaginous septum is the usual seat of the anomaly, and especially the middle and posterior portions. The deviation is either single, the septum projecting on one side or the other, so as to form an occluding tumour, or it is double, the cartilage then forming a S-shaped curvature, so as to constrict or completely occlude both sides of the nose. The former instance would be one of single, and the latter one of double nasal atresia. In those very rare cases, in which the curvature affects the free margin and anterior portion of the cartilaginous septum, the best treatment consists in simple excision. The obstructing portion of the cartilage may be readily cut away, and the nasal cavity be thus laid open. In the more frequently observed cases of curvature of the middle and posterior portions of the cartilage, such treatment, on account of the depth of the affected parts, cannot be so easily applied. The author's plan of treatment, which has been carried out with success in two reported cases, is a modification of one proposed by Mr. Wm. Adams in 1875 (*Brit. Med. Jour.*, Oct. 2). The principle of the treatment adopted by Mr. Adams is this. Whilst the patient is under the influence of an anæsthetic, the bent cartilaginous septum is straightened by using a pair of strong forceps with flat parallel blades, and, after removal of the forceps, a retentive apparatus is inserted, consisting of a steel-screw compressor with two blades, one blade being introduced into each nostril. After this compressor has been worn continuously for two or three days, it is replaced by two ivory plugs, which can be introduced and removed by the patient at pleasure, both nostrils being thus kept moderately distended and support being given to the cartilaginous septum. Dr. Jurasz, holding that, immediately after the removal of the strong forceps by which the septum has been straightened, the cartilage, through its elasticity, at once returns to its former condition of curvature, recommends that the treatment be carried out in one stage; and, with this object, has devised a pair of forceps, the blades of which serve, in the first place, to straighten the septum, and, in the second place, as a compressor, which may be allowed to remain in the nostril for three days. With this instrument, after the septum has been forcibly straightened, the long handles can be detached and removed, leaving the constricting blades *in situ*. The operation is followed by much swelling of the nasal mucous membrane and by ulceration over what was the most prominent portion of the cartilage; but, after recovery from these results, the septum, Dr. Jurasz says, will be found almost quite straight. The respiration will now be free, and all previous troubles, due to the deformity, will have ceased. Any tendency to relapse may be treated by the use of Mr. Adams's ivory plugs. W. JOHNSON SMITH.

17. *Subbotin on Treatment of Hæmorrhoids by Forcible Dilatation of the Anus.*—Having referred to the dangers accompanying the usual methods of radical treatment of hæmorrhoids, *i.e.*, excision, ligature, and cauterisation, Professor Subbotin (*Mejdunarodnaia Clinica*, No. 1, 1882) advocates a fourth method, which is alleged to be entirely free of such dangers as subsequent pyæmia, stricture from the anus, secondary hæmorrhage, general peritonitis, etc. This operation is forcible dilatation of the anus and lower part of the rectum, recommended, about thirty years ago, by Maissonneuve, and, after many years of oblivion, in 1876-77, again introduced into practice by Verneuil and Fontan, and later by Guyon, Trélat, and other French surgeons. The author, from his own experience, draws attention to the simplicity, safety, rapidity of curative action, and efficiency of this method, which is described by him as follows. On the day before the operation, the bowels are thoroughly opened by a purgative; and, immediately before the dilatation, the rectum is washed out by an enema. The patient being brought under the influence of chloroform, and placed on his left side, with his thighs fully flexed, the operator stands behind the patient and introduces a bivalved Recamier's anal speculum. Then he gradually and cautiously opens the speculum (introduced down to its handle); and, when all the rugæ of the ano-rectal mucous membrane have been effaced by stretching, he leaves the instrument opened to its widest extent *in situ* for two or three minutes, and then removes it. With this action the treatment comes to an end, no after-treatment being required. The operation lasts about six to eight minutes. The immediate effects of the dilatation consist: 1. in a paretic state of both rectal sphincters, which exists three or four days, and then is followed by normal contraction of the parts; and 2, in complete relaxation or disappearance of the hæmorrhoid varices. Small piles usually disappear at once, never to return; large ones remain visible for some time after the operation as soft, lax, and empty capsules. These are gradually diminished, and, as a rule, finally disappear, or remain in the shape of simple polypi, causing no discomfort to the patient. According to the author, the action of dilatation in the treatment of hæmorrhoids is twofold. First, by relaxing the sphincters, it removes the cause of stagnation of blood in the beginnings of the hæmorrhoid veins; and, secondly, it expels the contents of the varices and compresses their walls in such a way as to cause their adhesion and obliteration of the cavity. Professor Subbotin points out only two contra-indications to forcible dilatation. They are, suppuration and incipient gangrene of the piles. In cases of highly tense and irreducible hæmorrhoids, he advises that the operation should be done in two stages: first, dilating by means of the fingers alone, and, some days later, proceeding with instrumental dilatation.

V. IDELSON, M.D.

18. *Symonds on a Case of Osteitis Deformans.*—Mr. C. J. Symonds records (*Guy's Hosp. Rep.*) a case of this disease. The patient, a married woman, was 69 years of age, and had been under Mr. Symonds's observation for six years. Her father had been de-

formed in the hands, but this was attributed to rheumatic gout; all other members of her family, including three daughters, had been free from any such affection as this patient suffered from. There was no history of tumour or syphilis either in the patient or her family. At the age of 48, and without premonitory symptoms, the left shin began to bulge forwards. Subsequently, the right leg became affected. At the age of 57, the right arm became very painful, and the left arm began to 'crook', but without much pain. The right hip became painful and prominent. At the age of 64, an ulcer formed on the left shin, and has increased continuously. The pain gradually ceased in the right arm. At the present time the patient is in fairly good health, and is possessed of considerable energy. The appearance of the deformed legs corresponds exactly with the illustrations accompanying Sir James Paget's paper in the *Med.-Chir. Trans.*, vol. lx. There is restricted range of motion in the right hip-joint.

E. NOBLE SMITH.

19. *Harrison on the Radical Cure of Varicocele.*—Mr. Reginald Harrison, in the *Lancet*, March 1882, p. 477, describes the mode of operating in varicocele, which has given him very satisfactory results. The spermatic cord is exposed by a vertical incision, about an inch in length, and the veins, being carefully separated, each is tied in two places with a catgut ligature. Usually, three or four large veins are thus dealt with, and the bundles of smaller veins are obliterated by a few touches of the thermo-cautery. The operation is conducted antiseptically, and no sutures are used.

20. *Bond upon Death after Operation for the Relief of Strangulated Hernia.*—Mr. C. J. Bond, in the *Lancet*, March 1882, p. 478, reports a case well illustrating Sir J. Paget's observations, that death, following operations for strangulated hernia, is mainly due to the fact that the injured bowel fails to recover its normal condition, and hence the great value of early operations. In Mr. Bond's case, a woman with strangulated umbilical hernia was operated upon three days after symptoms of strangulation had set in. The relief at first appeared marked, but in half an hour diarrhœa set in, with vomiting, and the patient died exhausted within twelve hours of the operation. At the *post mortem* examination, a piece of small intestine, three or four inches in length, lying near the umbilical opening, was purple in colour, very injected, but still smooth on its peritoneal aspect, not covered with lymph or bound to neighbouring parts. On opening it, and washing away some grey sloughy tissue, the mucous membrane was found to be grey and sloughing, and in some places, especially at the site of the constriction, eroded into ragged ulcers. The summits of the valvulæ conniventes were also, in some places, ulcerated away. In successful cases of operation for strangulated hernia, the bowels often do not act for some days, while diarrhœa is generally associated with a fatal termination, and is due to the paralysed condition of the bowel, which leads to its own destruction.

21. *Heath on Fractured Patella.*—Mr. Christopher Heath, in the *Brit. Med. Jour.*, March 1882, p. 422, directs attention to a new method of treating this accident, and one which has, in his hands, yielded good results. The effused blood and serum is at once removed by aspiration, and a plaster-of-Paris bandage put on over cotton wool, and the patient allowed to get about as soon as the plaster is dry. By this method the muscles do not lose their tone, being constantly exercised, and ligamentous union is secured, which is far more satisfactory, in most cases, than so-called bony union.

RICHARD NEALE, M.D.

PATHOLOGY.

RECENT PAPERS.

1. VIBERT.—The Possibility of distinguishing Human Blood from that of other Mammals. (*Arch. de Phys.*, Jan. 1882.)

2. RICHARD.—The Parasite of Malaria. (*Comptes Rendus de l'Acad. des Sciences.*)

3. DÉJÉRINE.—The Degeneration of the Cutaneous Nerves in Locomotor Ataxy, and its Influence on the Disturbances of Cutaneous Sensibility in that Disease. (*Bul. de la Soc. de Biologie.*)

4. KEY, ROSSANDER, and BRUZELIUS. — A Case of Septicæmia. (*Nord. Med. Arkiv*, Band xiii.)

5. TILLMANNS.—Communication of the Gastro-Intestinal Tract with the Thorax: Subphrenic Fæcal Abscess. (*Archiv. für Klin. Chir.*, Band xxv.)

6. DE GIOVANNI.—Researches on the Inflammatory Process. (*Gaz. Med. Ital. Prov. Venete*, Jan. 14, 1882.)

7. MEGNIN.—Pernicious Anæmia in Dogs. (*Ibid.*, No. 11, 1882.)

8. WOOD.—The Contagium of Diphtheria. (*Phil. Med. Times*, Oct. 22, 1881.)

9. GARRIGUES.—Cyst of the Pancreas. (*New York Med. Rec.*, March 1882.)

10. KLIPPEL.—Rupture of the Heart. (*Le Prog. Méd.*, No. 9, 1882.)

11. SCHOPF.—Tænia Cucumbrina Ellipticæ. (*Wiener Med. Blätter*, No. 52, 1881.)

12. SKABICHEVSKY, V. T.—Pathological Changes in the Sympathetic Nervous System in Cases of Phthisis. (*Vratch*, 1882, No. 2, pp. 17-20.)

13. KOLESNIKOFF. — Pathological Changes in the Brain and the Spinal Cord in Rabid Dogs. (*Arch. Vet. Nauk.*, December 1881.)

14. BROWN-SÉQUARD.—*Post Mortem* Spasm. (*Gaz. Hebd. de Méd.*, Nov. 25, 1881.)

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1. *Vibert on the Possibility of Distinguishing Human Blood from that of other Mammals.*—Vibert (*Arch. de Physiologie*, Jan. 1882) says that medical experts are often called upon to decide whether blood-spots contain human blood. It is impossible to affirm that a blood-spot is one of human blood; all that can safely be asserted is that it is possible to be human blood. Sometimes it can be indisputably proved that a blood-spot contains blood other than that of man. When this distinction can be made, it is owing to the fact that the animal, the blood of which has caused the stain, belongs to a species in which the blood-corpuscles are smaller than those of man. To arrive at this decision, the examination must be made under the most favourable conditions.

2. *Richard on the Parasite of Malaria.* — M. Richard (*Comptes Rendus des Séances de l'Académie des Sciences*) acknowledges that the new details he is able to give concerning the microphyte of malaria are the result of experiments made at the Philippeville Hospital, similar to those made by M. Laveran, who has recently called attention to the presence of a microphyte (which he names oscillaria malariæ) in the blood of patients suffering from paludal poisoning. M. Richard affirms that this microphyte has a special habitat—the red blood-corpuscle, where it developes: it quits the corpuscle on arriving at the adult state. On examining the blood of patients on

the eve of an attack, it is observed that there is a round clear spot in the body of the red corpuscles. There are also to be seen other corpuscles in which the evolution of the microphyte is more advanced: the clear spot is larger, and tightly enclosed in a circle of small black granules. The hæmoglobine, easily recognised by its greenish colour, forms a ring which becomes smaller and smaller as the parasite increases in size. Finally, the hæmoglobine disappears entirely, and the red corpuscle is reduced to a shell occupied by the microphyte. In the adult stage, the microphyte of malaria resembles a collar formed of black granulations. It possesses several excessively thin projections, measuring 25 micro-millimètres (the thousandth part of a millimètre) in length, sometimes more. The parasite breaks through the membrane and passes into the plasma of the blood; sometimes the filaments only break through the membrane, and the body of the parasite is imprisoned in the corpuscle. In either case, the microphyte executes movements comparable to that of a rod when held by the thick end and shaken. In the course of their movements they whip together the neighbouring red corpuscles. Sometimes their free extremity, which is slightly bulging, is easily caught in the meshes of the fibrinous network; then the body of the parasite oscillates simultaneously with the filaments which move with increasing rapidity, as though it tried to free itself. In about an hour, the movements cease, and the parasite remains deprived of all vitality. This curious phenomenon, presented by the vibrations, is not always observed; generally the parasite remains inert. The vibrations are more likely to occur in the more advanced states of development. The red corpuscles, with very small parasites, never present any movements. The corpuscles containing parasites slowly spread out and change in form; the pigmentary collarette breaks up; the pigment-granules thus liberated are quickly brought back to the blood by the leucocytes which become impregnated with them. M. Richard energetically asserts that melanæmia of the leucocytes is not a primary phenomenon, but a secondary one, the original and essential alteration taking place in the red corpuscles. M. Richard considers that there are many physico-pathological deductions to be drawn from his researches, but restricts himself to the following example. An attack of the pernicious comatose form of malarial fever has its origin in an obstruction of the cerebral capillaries. This obstruction is caused by small masses of elements containing collars of black granules, which clearly indicate the presence of the microphyte already described. The red corpuscles lose all their elasticity and become viscous; thus they circulate with difficulty in the minute capillaries, which easily become obstructed. A few viscous non-elastic corpuscles suffice. In the pernicious form of paludal fever, they are found in considerable quantities.

3. *Déjérine on the Degeneration of Cutaneous Nerves in Locomotor Ataxy, and the part played by it in the Sensory Cutaneous Derangement observed in this Affection.*—M. Déjérine (*Bull. de la Soc. de Biologie*) believes that the different degrees of cutaneous sensibility remarked in locomotor ataxy, most generally depend on the extent of the degeneration existing in the cutaneous nerves of the region affected. *Post mortem* examinations bring to light but slight alterations in the spinal cord, and the posterior roots present the usual degree of atrophy. This is observed in cases where the patients, during life, presented exaggerated cutaneous sensory derangement. The cutaneous nerves of the zones of anæsthesia, removed in the usual way, afterwards treated by osmic acid and picrocarminate, on microscopic examination showed marked nervous degeneration, altogether comparable to that which existed in the posterior roots of the spinal cord of the same patient. Numerous empty sheaths were observed presenting the usual histological features; there being very few healthy tubes, two or three only in a section, sometimes, though rarely, a tube in process of degeneration. W. VIGNAL.

4. *Key, Rossander, and Bruzelius on a case of Septicæmia.*—A case presenting peculiar characters is reported in *Hygiea* for 1880 (*Nord. Med. Arkiv*, Band xiii, Häft 4). A man, aged 65, on the night of October 23rd, raised himself on his knees, in bed, to pass urine. He overbalanced himself and fell on the chamber-vessel, which broke, inflicting upon him some superficial abrasions of the face, and a transverse wound of the neck, three inches long. He lay down and slept. On his rising, at eight o'clock the next morning, considerable hæmorrhage occurred, which was arrested by a barber by means of compression. Dr. Rossander, who was called in, disinfected the wound and the surroundiag parts with a five per cent. solution of carbolic acid, and applied catgut sutures and Lister's dressing. Two days later, suppuration having commenced in the wound, some of the sutures were removed. Two days after that, carbolic eczema appeared, and a dressing of salicylic acid was substituted. For some days the patient did well, and on the seventh and eighth days was able to go out for an hour. The wound suppurated moderately at each angle; there was some redness around, but no erysipelas. On November 1 the patient had a rigor; so slight, however, that he did not mention it, although questioned. On the 2nd, it recurred, and he had pain in the back and some dyspnœa, and felt very ill. On November 3rd, he was worse; the urine was found to contain albumen. Herr Bruzelius, who had been his medical attendant for eight years, now saw him. He had constantly found small quantities of albumen in the patient's urine, but no tube-casts; and he the more readily assumed the presence of an ordinary acute nephritis, as the appearance of the wound did not present anything remarkable. The next day, however, swelling and tenderness of the joints of the feet and of one of the hands appeared. The patient died on November 5th, fourteen days after receiving the injury. The body having been prepared with carbolic acid, a necropsy was made by Dr. Axel Key. The wound was healed only in the centre; there was a small cavity at the upper third, but no trace of purulent infiltration; nor was there any burrowing of pus in connection with the lower third. The skin, for about five centimètres around, was of a purple colour, and the epidermis was loosened in parts. The kidneys showed, besides a very slight amount of contraction, very acute parenchymatous nephritis; the spleen was enlarged and soft. On the other hand, there was found in the above-mentioned joints, the parts around which were free, a small quantity of grumous sero-purulent fluid. This was removed for immediate examination, and was found to contain, besides lymphoid cells, a very great abundance of bacteria, partly isolated micrococci, partly diplococci and streptococci, the latter in great number. Careful examination failed to detect any other form of bacteria. Bacterial emboli were also found in the lungs and kidneys, without any surrounding deposits of pus. A. HENRY, M.D.

6. *De Giovanni on the Inflammatory Process.*—In a long and exhaustive article in the *Gaz. Med. Ital. Prov. Venete*, Jan. 14, 1882, Professor de Giovanni enunciates the following doctrines relative to the process of inflammation, some of which, it will be noticed, differ considerably from received teachings. 1. In the mechanism of inflammation, the capillaries play a chief part. 2. The 'cellular theory', as maintained by some, is quite inadequate to explain the phenomena of inflammation. 3. Diapedesis, as a means of accounting for inflammatory effusion, the author cannot recognise; if it be a fact at all, it is a comparatively unimportant one in the chain of physiological events. 4. The 'protoplasmic' theory is much more in accordance with recognised facts. 5. According to the author, the inflammatory process consists of the following factors: retardation of the circulation, with stasis in the capillaries; protoplasmic movements in these vessels; hæmorrhage by solution of continuity; and diffusion of the plasma of the blood, followed by the evolution of formative elements in the latter.

LITTON FORBES.

7. *Megnin on Pernicious Anæmia in Dogs.*—M. Megnin (*Le Prog. Méd.*, 1882, No. 11) reports that, in the disease called epidemic bleeding of the nose of dogs, there is chronic inflammation of the mucous membrane of the small intestine and cæcum, in which the membrane and its villosities are thickened and reddened. These lesions alone would explain the anæmia, but they are produced by the bites of numerous worms of the orders Ankylostomum and Trichocephalus. He has found the same disease in the cat. The name given above is due to the frequent but constant discharge of a serosanguinolent fluid from the nostrils.

8. *Wood on the Contagium of Diphtheria.*—Dr. Wood (*Philadelphia Med. Times*, Oct. 22, 1881) has found an organism in the blood of diphtheritic patients, free in the serum and contained within the leucocytes, which, on cultivation, causes diphtheria when introduced into the bodies of animals. This micrococcus differs from that which may be found in ordinary angina, simply by the activity of its reproduction.

9. *Garrigues on Cyst of the Pancreas.*—Dr. H. J. Garrigues (*New York Med. Record*, March 18, 1882) reports a case of cyst of the pancreas, removed by Dr. Bozeman from a living woman. It weighed twenty pounds and a-half, and contained two gallons and a half of fluid. Its wall was 2 or 3 millimètres thick, and covered with flattened epithelium; it was lined with very narrow columnar epithelium, and the inner surface showed the formation of secondary cysts, similar to what may be seen in ovarian cysts. The fluid was yellowish-grey, viscid, acid, and of specific gravity 1020. It did not coagulate on standing, but did so abundantly on heating. It contained compound granular corpuscles, small nuclei, epithelial flakes, and shreds of the bodies of epithelial cells.

10. *Klippel on Rupture of the Heart.*—M. Klippel (*Le Prog. Méd.*, 1882, No. 9) has published two cases of spontaneous rupture of the heart, in both cases in old women, aged respectively 59 and 77. In both, the rupture was in the anterior wall of the left ventricle near the apex. The coronary arteries were atheromatous and thrombosed. He suggests that the sequence of events was, first, degeneration of the parts supplied by the obstructed vessel, and then rupture of the altered myocardium.

ROBERT SAUNDBY, M.D.

11. *Schopf on the Tænia Cucumerina Elliptica.*—Schopf reports a case in which he met with this rare form of tænia (*Wiener Med. Blätter.*, No. 52, 1881). It is 20 centimètres long, has a rostrum with sixty hooks arranged in several rows, proglottides 2 millimètres broad, and two sexual openings. This cysticercus lives in the trichodectes canis (dog-louse); and infection occurs through the tongue of the dog, or by children stroking the dogs and afterwards sucking their fingers. The patient was a girl seven months old.

F. WILLIAM ELSNER.

12. *Skabichevski on Changes in the Sympathetic Nervous System in Phthisis.*—Dr. Skabichevsky (*Vratch*, No. 2, 1882), at the suggestion of Professor V. A. Manasseïn (who is of opinion that the development of phthisis, in some cases, may depend upon certain primary lesions in the nervous apparatus of the lung), has undertaken the examination of the cervical ganglia and trunks of the sympathetic nerve in phthisical subjects. Sixteen cases have been carefully examined, in thirteen of which the phthisical lesions were bilateral, and in three unilateral. In all his cases, the author found chronic inflammation both of the trunks and of the ganglia of the sympathetic, which led to the development of connective tissue, to the compression of nervous elements, and to their subsequent atrophy with pigmentation and fatty degeneration of nerve-cells. In more acute cases, the sympathetic cervical ganglia and nerve-trunks appeared rather enlarged and injected. Microscopical examination detected the high development of plexus of greatly dilated blood-vessels, which were densely overcrowded with red blood-cells and encircled by abundant collections of leucocytes. The adventitia was thickened. The epithelioid covering of the capsules of nerve-cells was swollen, and presented all the phenomena of proliferation. Some nerve-cells preserved their natural shape and size, but others became opaque and granular; others, again, were diminished in volume, and their protoplasm contained highly lustrous, brownish-yellow granules. The nerve-fasciculi showed similar hyperæmia, and accumulation of round and fusiform leucocytoid cells in the interfibrillar connective tissue. The nerve-fibres were swollen, rather opaque; some of them had a bead-like appearance; the myeline covering of others was coagulated, and consisted of highly refractive drops of various size. In more chronic cases of phthisis, the author found an enormous development of dilated blood-vessels. The nerve-cells were very small, and situated at a considerable distance from each other; many of them had lost their nuclei; almost all had, partially or wholly, undergone brownish-yellow pigmentation. The external membrane (with its interne processes) of the ganglia, the external capsule of the ganglionic nerve-cells, the neurilemma of the nerve-fibres, and the tunica adventitia of the blood-vessels, were all greatly thickened. The author invariably found such changes more intensely developed in the inferior cervical ganglion than in the superior. In cases of unilateral phthisical affection, the lesions of the sympathetic on the healthy side were but slight. The author concludes that the sympathetic lesions are secondary, and spread from a primary focus in the form of diseased bronchial lymphatic glands. The latter were found degenerated in all the cases investigated. They invariably presented swelling, caseation, pigmentation, thickening of their capsules, and of the adjacent cellular tissue. The author thinks it possible that the sym-

pathetic ganglia affected in this way may, in their turn, determine certain 'trophic' changes in the lungs. Possibly, also, he thinks the well-known phenomena of sharply defined red spots on the cheeks of phthisical subjects, the sudden disappearance of redness, and the equally sudden paleness of the face, the tendency to facial perspiration, and other similar sympathetic symptoms, are really due to the above-mentioned pathological changes in the ganglia of the sympathetic nerve. [If we are not greatly mistaken, Dr. Skabichevsky is the first who has undertaken the investigation of the state of the sympathetic system in phthisis; at all events, Russian medical literature does not contain either other similar contributions, or even a reference to any foreign work of such kind. Lately, Dr. S. D. Kosturin has investigated the pneumogastric nerve in phthisis, and has shown that neuritis vagi is a constant phenomenon in this affection (see Professor Manasseïn's *Archiv*, Series ii.)—*Rep.*]

13. *Kolesnikoff on Changes in the Brain and the Spinal Cord in Rabies.* — Professor Kolesnikoff (*Arch. of Veterin. Med.*, Dec. 1881), after prolonged researches, arrives at the conclusion that the changes in rabies affect mainly the cerebral and spinal blood-vessels, and consist in dilatation of the latter, with leucocytic infiltration of the walls, and circumvascular and periganglionic accumulation of leucocytes. In course of time, the exudation is transformed into hyaloid opaque masses, which, later, undergo gelatinous or pigmentary degeneration. Besides, within the substance of the walls, there are to be seen 'protoplasmatic bodies' enclosing red blood-corpuscles and granules of blood-pigment. Such changes are, according to the author, more intense in and about the walls of veins than in arterioles. Topographically, they are most intense in the corpora striata, the optic thalami, the pons Varolii, the medulla oblongata, and the spinal cord in and around the nuclei of the seventh, eighth, ninth, tenth, and twelfth cerebral nerves. [In other words, the author's investigations tend generally to confirm the results published by Netten Radcliffe, Allbutt, Hammond, Benedikt, Friedberger and Putz, J. Coats, Dunlop and Patterson, Gowers, Wassilieff, Huguenin, and O. Weller. Professor Kolesnikoff was the first investigator who (*Centralb. für Med. Wiss.*, 1875) observed the formation of diaphanous masses within the blood-vessels in lyssa, and proved the direct connection between these 'shining thrombi' and hyaloid bodies outside the vessels.—*Rep.*] V. IDELSON, M.D.

14. *Brown-Séquard on 'Post Mortem' Spasm.*—Brown-Séquard describes a form of *post mortem* spasm, or contraction of the voluntary muscles, distinct from rigor mortis. (*Gaz. Hebd. de Méd.*, Nov. 25, 1881 and 1882, pp. 6 and 43.) This form of contraction may be produced by lesions of the cerebellum. It rapidly disappears, and is followed by speedy putrefaction. Sometimes it appears *ante mortem*, and continues for a short time *post mortem*. After its disappearance, true rigor mortis may set in.

THOS. STEVENSON, M.D.

OBSTETRICS AND GYNÆCOLOGY.

RECENT PAPERS.

1. BARANSKI.—Prolonged Interval between the Birth of Twins. (*Jour. de Méd. de Paris*, April 22, 1882.)

2. HERRGOTT.—Podalic Version. (*Ann. de Gynécol.*, April 1882.)

3. KLEINWACHTER.—A Case of Fibromyoma Complicating Pregnancy. (*Prager Med. Woch.*, No. 9, 1882.)

4. LEFOUR.—A Case of Double Cephalhæmatoma. (Bordeaux, 1881.)

5. PASCHAL, F.—Abdominal Pregnancy of Ten Years' Duration. (*Obstet. Gaz.*, Cincinnati, March 1882.)

6. PIASECKI.—On the Influence of Tobacco Manufacture on Menstruation, Pregnancy, and New-born Children. (*Ann. de Gynécol.*, April 1882.)

7. REHFELDT.—On the Disinfection of the Puerperal Uterus by means of Iodoform. (*Berl. Klin. Woch.*, No. 9, 1882.)

8. SCHÜCKING, A.—On Iodoform and Permanent Irrigation. (*Centralb. für Gynäk.*, den 1 April 1882.)

9. SINCLAIR, A. D.—Subinvolution of the Uterus. (*Boston Med. and Surg. Jour.*, April 13, 1882.)

10. STUDLEY, W. H.—The Mechanism of Forceps Labour and the Principles of Forceps-Construction. (*Amer. Jour. of Med. Sciences*, Jan. 1882.)

11. TATE, J. H.—Submucous Fibroids of the Uterus. (*Obstet. Gaz.*, March 1882.)

12. WING, C. E.—The Diagnosis of Uterine Anteflexions and Anteversions. (*Boston Med. and Surg. Jour.*, Feb. 1882.)

13. WOLCZYNSKI.—A Case of Annular Stenosis of the Vagina in a Multipara. (*Centralb. für Gynäkol.*, April 22, 1882.)

14. RUSANOVSKY, M.—On Le Bon's Method for the Treatment of Stillborn Infants. (*Vratch*, 1882, No. 1, pp. 10-11.)

15. LEBEDEFF, M.—Hot-Water Injections in Obstetrical and Gynæcological Practice. (*Vratch*, No. 3, 1882, pp. 44-46.)

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1. *Baranski on a Case of Prolonged Interval between the Births of Twins.*—The patient was delivered naturally of a male child a little before term. The placenta followed in a few minutes. Feeling quite well, the woman returned to her work in the fields. One day whilst thus working, seventeen days after the birth of the first child, she felt an escape of a large quantity of amniotic fluid, but without any pain. Dr. Baranski, who was at once sent for, found an arm presenting, and delivered a child without any trace of maceration, and well-developed. The placenta followed in a few minutes.

5. *Paschal on Abdominal Pregnancy.*—In August 1881, a Mexican woman rode eighty miles on horseback to consult Dr. Paschal, and asked to be treated for 'diarrhœa'. After a few questions, she handed Dr. Paschal the femur, scapula, and two other bones of a fœtus of about nine months. He then obtained the following history. She was thirty years old, and married at the age of fifteen. Five years after her marriage she became pregnant for the first time, and went, as she supposed, to full term. She noticed nothing unusual during gestation, except great difficulty in resting in the recumbent position. About the time that she should have been confined, pains came on, not severe in character, which lasted four days. They ceased, and shortly afterwards she commenced failing in health. She had had abdominal pains, chills, fevers, sweats, loss of appetite, vomiting and diarrhœa. A year afterwards her menses returned. She menstruated regularly since, and the size of the abdomen gradually decreased. In May 1881, ten years after her expected confinement, she expelled by the rectum one-half of the inferior maxilla; from then until August she had collected four bones. At the time she consulted Dr. Paschal, her general condition was bad. She was emaciated, suffered abdominal pains,

had fever and diarrhœa; pulse ranged from 100 to 120, temperature 100 deg. to 101 deg. Inspection showed the abdomen to be enlarged; a hard tumour could be plainly made out, situated between the pubes and umbilicus. On vaginal examination the womb was found to be normal; the bones could be distinctly felt through the *cul-de-sac;* the bladder was uninjured. By rectal examination, an opening about the size of a silver dollar was found to exist three inches from the anus. The denuded bones were easily reached, and the cranial bones 'presented'. Two days after this examination she was placed under chloroform, and with a forceps, aided by the fingers, Dr. Paschal removed without enlarging the opening, one-half of the frontal bone, one parietal and several ribs. She suffered no bad consequences, and eight days after she was again chloroformed, and the occipital, temporals, and several long bones removed. During a period of eight days after the last operation, she passed one hundred and twenty-two bones. After an interval of fifteen days, the remaining half of the frontal bone, and all others that could be found in the cyst, were removed. She improved rapidly in health. The tumour could no longer be felt; diarrhœa ceased, and one month after the operation she returned home completely restored. In all, two hundred and fifty bones were collected.

6. *Piasecki on the influence of Tobacco on Menstruation and Pregnancy.*—Dr. Piasecki draws the following conclusions from an examination of 540 women employed in the tobacco-manufacture at Havre, with reference to the influence of tobacco on their generative functions. 1. Tobacco cannot be regarded as an emmenagogue. 2. The various labours to which the fabrication of cigars, etc., give rise, produce no unfavourable influence on the work-women. 3. It has no injurious influence on pregnancy. 4. Abortions are not more common among the work-girls of the manufactory of tobacco at Havre, than among other women in the town. The cigar-girls, who are more sedentary in their habits, are those chiefly affected by miscarriages. 5. The mortality among the new-born children was considerable, 233 deaths in 376 births. These deaths did not depend, however, upon the employment of the mothers, but on the general unsanitary conditions by which they were surrounded.

7. *Rehfeldt on Iodoform in the Puerperium.*—The author was called, on the fourth day after a normal labour, to a patient with putrid endometritis. The patient improved with carbolic injections; but as it was impossible to maintain permanent irrigation, Dr. Rehfeldt determined to use iodoform. After the uterus had been carefully washed out with a 2 per cent. carbolic solution, he applied 5 grains of iodoform to the uterine cavity. The lochia became normal, the pulse and temperature fell, although not down to the normal, on account of several abscesses which had arisen from the continued dorsal decubitus. Convalescence rapidly progressed as soon as the abscesses healed.

10. *Studley on Mechanism of Forceps Labour.*—Dr. Studley has devised an instrument which possesses the following characteristics. 1. The blades are of more than the ordinary width, and possess a more decided concavity, both transversely and longitudinally. They are thereby enabled to grasp the head with a hug, which is distributed generally and evenly over the cranial surface, from their tips to their junction with their shanks, by which means an undue pressure on any one point is avoided; an upward or downward tendency to glide from the cranial convexity is prevented; their central rotatory action on the sides of the head as pivotal points is guarded against; and lastly, the muscular perception is greatly conduced to by the firmer bearing of the handles, indicating thereby the course which the head is naturally pursuing. 2. The proximal ends of the blades and the shanks are stiffer than in the great majority of forceps. They are such as to allow almost no separation within the bounds of any reasonable traction. Limber forceps are simply barbarous. They not only do no good, but they slip off, and bruise the head and lacerate the perinæum; and if by the prudence of the obstetrician they be prevented from doing this, they slip just far enough to concentrate all the bearing or pressure on the tips of the blades, and thus convert them into gouging or cutting instruments. The binding-screw is in all essential respects the same as Tarnier's, and hence needs no comment.

12. *Wing on the Diagnosis of Anteflexions and Anteversions.*—The author states that the different opinions held by authorities on the value of pessaries in the treatment of anteflexions, is explained by errors in diagnosis or want of precision in diagnosis. The anteflexion of one gynæcologist, which he finds but rarely, and then has but little success in treating, is a very different thing from the anteflexion of his neighbour, who diagnosticates these displacements very often, and easily relieves the great majority of them by the use of pessaries of one kind or another. Most of the anteversion-pessaries are supposed to force the fundus up towards its normal position by pressure exerted through the anterior vaginal wall upon it. But the tender bladder is in the way, lying between this anterior vaginal wall and the uterus in such cases; and it is nonsense to talk of exerting enough steady pressure upon the anterior vaginal wall to force the fundus into position, when such pressure must act through the bladder, which, as the rule with such displacements, is already irritable. When any good results are accomplished by this class of supporters, it is probably because they put the anterior vaginal wall upon the stretch, and lifting it somewhat, they must also lift in a measure the womb to which it is firmly attached at the cervix; but the same result can be better brought about by a common lever pessary, properly adjusted. FANCOURT BARNES, M.D.

14. *Rusanovsky on Le Bon's Method for the Treatment of Stillborn Infants.*—Dr. Rusanovsky (*Vratch*, 1882, No. 1) relates a very interesting and instructive case of asphyxia neonatorum, in which, after entirely unsuccessful application of the usual methods (including Schultze's), he resolved, *in extremis*, to try hot water treatment, lately recommended for still-birth by Dr. Le Bon. As there was no bath at hand, the author took a common iron pail, filled it with very hot water, and at once immersed the infant (who was pulseless and cold), leaving free the head alone. One minute afterwards —eighty-seven minutes after birth—the first inspiration was made, and the child's life was saved. The author points out that Le Bon's method is exceedingly simple, easy, conveniently practicable under all circumstances, and does not fatigue the obstetrician. As to the *rationale* of the method, the author is of opinion that the first inspiratory movement results from the powerful exciting influence produced by hot water upon the peripheric nerves of the skin, and from the subsequent reflex action of the respiratory centre in the medulla oblongata.

15. *Lebedeff on Hot Water Injections in Obstetrical and Gynæcological Practice.*—Dr. Lebedeff (*Vratch*, 1882, No. 3), gives his experience of six years' use of hot injections, which found in him a very enthusiastic advocate. He says that they are indicated: 1. in cases of uterine hæmorrhage of all kinds; 2. cases of subinvolution of the uterus whenever they are detected in the puerperal period; or later; 3. in chronic metritis; 4. in chronic inflammatory exudations in the neighbourhood of the uterus; 5. in acute inflammations of the uterus and the adjacent tissues, excluding the ovaries. [According to the author, vaginal injections of hot water are not only entirely useless in cases of acute oöphoritis, but they even increase the ovarian pain and swelling.] In cases of *post partum* hæmorrhage, the author generally used vaginal or intrauterine injections of water, at 35 deg. to 38 deg. Reaumur (110.75 to 117.5 Fahr.). As a rule, one or two Esmarch's cans were sufficient to stop at once even very profuse flooding. Only very stout patients, who were rather insensitive to high temperatures, or who previously had been affected with chronic inflammation of the uterus, accompanied with menorrhagia, required the use of water at about 40 deg. Reaumur (122 Fahr.), and the repetition of injections every half-an-hour four or five times successively. In cases of abortion, Dr. Lebedeff administered injections every two hours, adding to the water some carbolic acid. As a means of exciting uterine contraction after labour, hot injections proved to be the best remedy the author ever knew. They were equally successful in subinvolution of the uterus beyond the puerperal period. After one or two weeks' use of hot water, two or three times daily, the dragging pelvic and lumbar pains disappeared, and then the leucorrhœal discharge and metrorrhagia or menorrhagia gradually diminished, and finally stopped. Less striking results were obtained by the author in cases of chronic metritis, in which he, differing from Dr. E. P. Dudley, saw only some slight decrease of the leucorrhœa and pains. Dr. Lebedeff most ardently praises hot vaginal douches as a means of producing rapid absorption of inflammatory products in chronic cases of pelvic cellulitis and in acute cases of peri- and parametritis and metritis, in which he used injections as hot as 38 to 40 deg. Reaumur (117.5 to 122 Fahr.), repeating them every two hours for some days. [He practised them much in the same manner as was recommended by Dr. Emmet, and described by Dr. Wing in an instructive paper in the LONDON MEDICAL RECORD, December 1880, p. 479.—*Rep.*]

V. IDELSON, M.D.

DISEASES OF THE NERVOUS SYSTEM.

RECENT PAPERS.

1. FRIEDRICH.—On Myoclonus Multiplex. (*Berliner Klin. Woch.*, No. 26, 1881.)
2. JOLLY.—On Changes in the Weight of the Body after Epileptic Fits. (*Ibid.*)
3. BAUMGÄRTNER.—On Epileptic Attacks during Chloroform-Narcotism. (*Ibid.*)
4. D'OLIER.—On the Co-existence of Hysteria and Epilepsy. (*Annales Médico-Psychol.*, Sept. 1881.)
5. CLARK, DANIEL.—Brain-Lesions and Functional Results. (*Amer. Jour. of Insanity*, Jan. 1881.)
6. ECHEVERRIA, M.—Note on Feigned Epilepsy. (*Ibid.*)
7. MICKLE, W. J.—Cerebral Localisation: Illustrated by a Case of Brain-Injury. (*Jour. of Mental Science*, April 1881.)
8. MACLEOD, M. D.—Cases of Choreic Convulsions in Persons of Advanced Age. (*Ibid.*, July 1881)
9. MCDOWALL, T. W.—Chorea in an Aged Person. (*Ibid.*)
10. ORMEROD, J. A.—On the Diagnostic Symptoms of Tabes Dorsalis, with Cases. (*St. Barthol. Hosp. Reports*, vol. xvii.)
11. ORMEROD, J. A.—Tendon-Reflex in the Later Stages of Hemiplegia. (*Ibid.*)
12. MORTON, CHARLES A.—Two Cases of Subacute Anterior Spinal Paralysis, with the Pathological Changes in the Spinal Cord in one of the Cases. (*Ibid.*)
13. GEE, SAMUEL.—Two Cases of Cerebral Disease. (*Ibid.*)
14. CURWEN, JOHN.—Rest in Nervous Diseases. (*Alienist and Neurol.*, St. Louis, July 1881.)
15. CLARK, C. W.—A Case of Consciousness during an Epileptic Seizure. (*Ibid.*)
16. SAUNDERS, E. W.—Four Cases of Genital Reflex. (*Ibid.*, Oct. 1881.)
17. HUGHES, C. H.—An Unique Case of Persistent Rhythmical (Clonic) Spasm. (*Ibid.*)
18. DIXON, A.—Case of Disseminated Sclerosis. (*Ibid.*, Jan. 1882.)
19. STEVENS, G. T.—Oculo-Neural Reflex Irritation. (*Ibid.*)
20. HUGHES, C. H.—Epileptoid Aphasia Superseded by Eczema. (*Ibid.*)
21. BALL, B.—Erythema Symptomatic of Cerebral Tumour. (*L'Encéphale*, Dec. 1881.)

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1. *Friedrich on 'Myoclonus Multiplex'.*—In a paper read before the South-West German Association of Neurologists and Alienists, Professor Friedrich assigns the above name to a disease, observed by him in a man aged 50, and consisting of clonic spasms of certain symmetrical groups of muscles, with occasional asymmetry. The flexors and extensors of the forearm and leg were most affected; the spasms, continued during sleep, could be increased by irritating certain regions of the skin, and could be controlled by voluntary movements. After having lasted five years, the affection spontaneously disappeared within the space of eight or ten days. The author thinks it most probable that the symptoms were due to functional disturbance of the ganglion-cells of the anterior horns of the spinal cord.

2. *Jolly on Changes in the Body-Weight after Epileptic Attacks.*—In a paper read before the same Society, Professor Jolly said that, in consequence of Kowalewsky's statement that the body-weight was considerably diminished after epileptic fits, he had taken the daily weights of twenty-eight epileptics and a number of healthy persons. He arrived at the conclusion that the loss of weight, if any, caused by epilepsy, came well within the daily variations of weight which are observed in health, and which often amount, without any essential change in diet, to as much as 500 grammes (about a pound) above or below the usual level.

3. *Baumgärtner on Epileptic Attacks during Chloroform Narcosis.*—Before the same Society, Dr. Baumgärtner mentioned the cases of two epileptics, in whom typical epileptic fits were brought on by the administration of chloroform, and drew attention to the analogy existing between the anæmia due to vascular contraction in epilepsy, and that which results from the defective oxidation of the blood during chloroform inhalation.

4. *D'Olier on Co-existent Hysteria and Epilepsy.*

—The full title of this paper, for which the author obtained the Esquirol prize for 1881, is 'On the Co-existence of Hysteria and Epilepsy, with distinct manifestations of the two Neuroses, considered in relation to both Sexes, but especially the Male'. The work is printed in the *Annales Méd.-Psychol.* for Sept. 1881. Eighteen cases are related and discussed; they serve to illustrate the four groups into which Charcot has divided *Hystéro-épilepsie à crises distinctes*. They are these: 1. Hysteria supervening in a subject already epileptic; 2. Epilepsy occurring in a patient previously hysteric; 3. Convulsive hysteria co-existing with *petit mal*; 4. Epilepsy superadded to non-convulsive manifestations of hysteria (contracture, anæsthesia, etc.) D'Olier's cases show that these forms of disease are met with in the male as well as in the female. His studies have led him to add a fifth group of cases to the above four. It consists of those cases in which epilepsy and hysteria not only co-exist, but, as it were, coincide; that is to say, each epileptic fit is accompanied by hysteriform symptoms, and yet the attack is not a mixed one of ordinary hystero-epilepsy. The absence of permanent disturbance of sensation, the characters of the convulsions, sometimes predominating upon one side, with the consecutive sleep or stupor, appear sufficient to prove that the essence of the malady is true epilepsy, and quite distinct from the epileptoid phenomena of the hysterical attack. Some of the symptoms of hysteria which are superadded to the true epileptic fit are these: a hysteriform aura (*e.g.*, anæsthesia, formication, local paresis), partial consciousness during the convulsive attack, with hysterical sensations as of suffocation, globus hystericus, intense cephalalgia, hallucinations, etc.

5. *Clark on Brain-Lesions and Functional Results.*—In the *Amer. Jour. of Insanity*, vol. xxxvii, No. 3, Dr. Daniel Clark opposes modern views as to the existence of motor centres in the cortex of the brain, by bringing forward a number of cases in which various regions of the brain have been injured without producing that impairment of function which he would expect to follow in the event of these views being correct.

8. *Macleod on Chorea in Old Age.*—Three cases are related (*Jour. of Mental Science*, July 1881). A male first became affected at the age of 50. He afterwards became in turn maniacal, paretic, paralysed, and demented. He died at the age of 55, having suffered for five years from strongly marked choreic convulsions. Two sisters became choreic at the respective ages of 60 and 69. They suffered from the disease until death, which took place at the ages of 66 and 73 respectively. Their father and brothers had also been choreic. Both the patients had partial paraplegia and mental symptoms. In all three cases, local lesions were found after death, implicating the motor area of the cerebral cortex. In two of the cases, these consisted of large flattened cysts in the membranes, pressing upon the convolutions; in the other case a tumour, about the size of a chestnut, surrounded by other smaller ones, was found to be the cause of irritation and degeneration.

11. *Ormerod on the Diagnosis of Tabes Dorsalis.*—In this paper (*St. Barthol. Hosp. Rep.*, vol. xvii) notes are given of twenty-one cases, with the special object of directing attention to the great value in diagnosis of the two following symptoms; 1. absence of the patellar tendon reflex and, 2, a peculiar state of the pupil, which, though it contracts normally during accommodation, does not contract under the stimulus of light. The condition of the pupils presents varieties; they are usually contracted, but not always, and they may contract neither to light nor during accommodation. The cases given are arranged in three series, thus: 1. cases with well-marked inco-ordination, (2) with slight inco-ordination, and (3) with no inco-ordination; the author's object being to show that the two symptoms mentioned occur not only in the well-developed disease, but also in the pre-ataxic stage. Attention is directed to the fact that the only other symptom which can be regarded as really constant in the premonitory stage, is that of the lightning-pains. This symptom, being subjective, cannot be directly observed; it is, therefore, most desirable that the objective symptoms mentioned should be carefully studied and looked for. The cases given are also analysed with regard to other symptoms and points of interest.

12. *Ormerod on Tendon-Reflex in Hemiplegia.*—Fifty unselected cases of non-recent hemiplegia are tabulated (*St. Barthol. Hosp. Rep.*, vol. xvii), according to the condition of the tendon-reflex, with a view to show with what frequency this is exaggerated in hemiplegic limbs, and to consider the relation borne by exaggeration of the tendon-reflex to the phenomenon of rigidity. Since exaggeration of the tendon-reflexes is said clinically to precede rigidity, and theoretically is referred to a similar irritation of the motor cells, the occurrence of it should count at least as a warning of impending rigidity. Dr. Ormerod's cases, to a considerable extent, support this view. They lead him to adopt the following conclusions. In some cases (about 20 per cent.) there is no excess of tendon-reflex on the hemiplegic side, and there is then no rigidity. In most cases (about 64 per cent.) there is such excess, and, should it be marked and persistent, generally there is rigidity present or to come. Thus, exaggeration of tendon-reflex may be taken as a delicate indication of that condition which, in an advanced stage, causes rigidity. 'Late rigidity' is known to affect the arm first and principally, and this appears to be the case whether the excess of reflex be in the arm or in the leg. In five cases, the tendon-reflex was found to be undoubtedly exaggerated on the sound side, but greatest on the paralysed side. Three somewhat anomalous cases are considered more or less in detail.

13. *Gee on Cases of Cerebral Disease.*—The cases described (*St. Barthol. Hosp. Rep.*, vol. xvii) are (1) hemichorea in a man aged 54, and (2) gelatiniform enlargement of the pons Varolii in a boy aged 9. Dr. Gee believes that the only previously recorded case of this latter form of disease was one of his own, described by Dr. Kidd in vol. xiii of the same reports. The medulla oblongata, down to the level of the lower border of the olivary bodies was involved in the translucent enlargement, as were the whole of the floor of the fourth ventricle and the walls of the aqueduct of Sylvius. The crura cerebri were flattened by pressure, but were not enlarged. The aqueduct of Sylvius was closed by pressure. The basilar artery was embedded in the swollen pons.

16. *Saunders on 'Genital Reflex'.*—Four cases are given (*Alienist and Neurologist*, Oct. 1881) of severe intermittent abdominal pain in male children of from three to five years of age. The pain was ascribed, in every case, to the irritation consequent upon an adherent prepuce. The author reports that the gastralgia ceased in each case as the immediate result

of separation of the prepuce from the glans, either with or without circumcision.

17. *Hughes on Rhythmical Clonic Spasm* (*Ibid.*)—A lady, past the climacteric, who had never suffered from apoplexy, epilepsy, hemiplegia, rheumatism, or chorea, became affected with rhythmical spasms of the flexors of the four lesser left toes, of the extensor of the left great toe, and of the muscles regulating the movements of the head, neck, and eyelids. This case of athetosis has been in progress two years; the toes of the right foot have become similarly affected; treatment has not been very successful; that directed towards improving digestion and general nutrition having afforded most relief.

19. *Stevens on Oculo-Neural Reflex Irritation.*—Attention is first drawn (*Ibid.*, Jan. 1882) to the reflex irritation which may arise as a consequence of coarse disease of, or injury to, the eyeball, as in sympathetic ophthalmia. Cases are mentioned in which epilepsy and diabetes insipidus of long duration were cured by the removal of a disorganised eye. The author then passes on to consider the various conditions which produce difficulties in performing the function of sight, as causes of reflex irritation. One case is given in illustration. The author states that many cases might be adduced to show that refractive errors and muscular insufficiencies are prolific sources of sick headaches, neuralgias, chorea, hysteria, and other nervous disorders. He believes that we have in this fact a ready explanation of many cases of hereditary tendency to nervous diseases. For, while it is not probable that neuralgia, for instance, is of itself an inherited condition, there is no doubt that hypermetropia is directly inherited. If it has caused neuralgia in the mother, it may also cause it, or some other nervous affection, in the child. From a careful record of family histories, Dr. Stevens feels convinced that much of the mystery of inheritance in disease is explained by the inherited physical form of the eyes and physical proportion of the ocular muscles. He also believes that inveterate cases of nervous diseases, not amenable to other forms of treatment, will often yield to the simple process of relieving the eyes from muscular or refractive disabilities.

21. *Ball on Erythema Symptomatic of Cerebral Tumour.*—Professor Ball directs attention (*L'Encéphale*, Dec. 1881) to three cases in which cerebral tumour has been diagnosed, in each of which an erythema, either temporary or permanent, was developed. It affected various parts of the body, but was always on the hemiplegic side. Ball believed it to be due to a vaso-motor paralysis. In one case it appeared several times in the form of unilateral facial erysipelas; always coming on and disappearing with great suddenness, and never being accompanied by febrile symptoms. In a second case it took the form of *erythema nodosum*, appearing and disappearing quite suddenly, and affecting the leg and forearm of the paralysed side. In another case the erythema is described as consisting of marbled patches of bluish redness, which became violet under the influence of cold, and which surrounded islands of normally coloured skin. Both limbs of the paralysed side were thus affected throughout, and there were one or two faint patches on the forearm of the sound side. The redness disappeared upon pressure, but returned almost immediately. It was not accompanied by pain, local heat, or general fever. The face was puffy and of a more uniform redness, the cheeks and nose being chiefly affected.

C. S. W. COBBOLD, M.D.

TOXICOLOGY.

RECENT PAPERS.

1. MOLODENKOW.—Two Cases of Poisoning with Boracic Acid. (*Wratsch*, No. 31, 1881.)
2. RENDU.—Paralysis from Charcoal Fumes. (*Le Prog. Méd.*, No. 5, 1882.)
3. VAN DEN BERGHE.—On Copper. (*Bull. de la Soc. de Méd. de Gand*, 1881, p. 499.)
4. WOOD.—Poisoning by Stramonium. (*Canada Lancet*, Vol. xiv, p. 161.)
5. JOHANSON.—On Bacteria. (*Pharm. Zeits. für Russland*, 1880, No. 24.)
6. WILLIAMS and WATERS.—Strychnine. (*Proc. of Royal Soc.*, No. 32.)
7. CLEAVER and WILLIAMS.—Aconite. (*Chemist's Jour.*, 1882, p. 146.)
8. HOFMANN and SCHULTZE.—Death from Burning. (*Wiener Med. Blätt.*, No. 50, 1881.)
9. DU MOULIN.—On the Physiological and Therapeutic Action of Phosphorus. (*Revue de Thér.*, Feb. 1, 1882.)
10. Rules for the Guidance of Experts in Cases of Suspected Poisoning. (*Rivisites Speriment. di Fremiatria e di Med. Legale*, 1881.)
11. VOGEL.—Examination of Spermatic Stains. (*Wiener Med. Blätter.*, No. 12, 1882.)
12. GUTTMANN.—The Action of Different Preparations of Aspidospermine. (*Archiv für Exper. Pathol. und Pharmak.*, Band xiii.)
13. BAADER.—Poisoning by Stramonium. (*Correspond. für Schweiger Ærytz.*, Oct. 1881.)
14. LANGERFELDT.—Poisoning by the Seeds of the Castor-oil Plant. (*Berliner Klin. Woch.*, No. 1, 1882.)

1. *Molodenkow on Two Cases of Poisoning with Boracic Acid.*—These cases both occurred in the surgical department of the Moscow Hospital, where a five per cent. solution of boracic acid is in common use. The first (*Wratsch*, No. 31, 1881) was a woman, aged 25, on whom thoracocentesis had been performed for a pleurisy with serous exudation, the pleural cavity being washed out with the above solution. Soon after the operation, vomiting set in, with small, weak pulse. The following day the same symptoms continued, and an erythema, commencing from the face, gradually spread over the back. On the third day after the operation, the patient died in full consciousness, complaining only of disturbances of vision. The above symptoms had persisted, and the erythema had extended to the thighs. The second case was that of a boy aged 16, affected with lumbar spinal curvature and consecutive abscess pointing in the right buttock. The abscess was aspirated, and washed out with boracic solution. Half an hour after the operation, vomiting and scarcely perceptible pulse supervened, and, on the second day, erythema commencing from the face, hiccup, and death. *Post mortem* examination was not allowed in the first case; in the second, the results were negative, with the exception of a few extravasations on the inner surface of the pericardium, death being caused by paralysis of the heart. In neither case was chloroform used during the operation.

JAMES ANDERSON, M.D.

2. *Rendu on Paralysis from Charcoal Fumes.*—M. Rendu read a paper, at the Société Médicale des Hôpitaux (*Le Prog. Méd.*, 1882, No. 5), on the paralyses which follow intoxication by the vapour of charcoal. A patient, aged 30, shut herself up with a pan of live charcoal; after twelve hours, she was found senseless, but came to herself in the course of

the day, when she presented a right-sided hemiplegia. It was not true hemiplegia, as the paralysis was limited to the lower half of the two right limbs; the motor paralysis was accompanied by perfect anæsthesia, abolition of all sense of pain, temperature, etc. Reflex sensibility was preserved; the tendon reflexes of the elbow and knee were exaggerated. Electrical contractility was abolished, and only returned after two months' faradism. This proves that the peripheral nerves are involved as well as the nerve-centres. She also presented local symptoms of perverted nutrition, local sweats, and the smooth state of the skin described by Weir Mitchell, also œdema of the arm, which lasted two months. The œdema was hard, painful, and at first resembled an abscess, much like what has been described by M. Leudet. M. Rendu concludes that hemiplegia from this cause is mixed, that it is not exclusively central, and that it especially behaves like a peripheral paralysis. The patient so far recovered that she could walk with a slight limp, and could work at her needle. R. SAUNDBY, M.D.

3. *Van den Berghe on Copper.*—Van den Berghe (*Bull. de la Société de Médecine de Gand*, 1881, p. 499) finds, as Odling found many years ago, that copper is, apparently, a normal constituent of bread and flour. These substances yield from 8 to 10 parts per million of metallic copper.

4. *Wood on Poisoning by Stramonium.* — Prof. Casey A. Wood publishes a case of poisoning by stramonium-seeds (*Canada Lancet*, vol. xiv, p. 161). About half a dozen seeds, together with some of the pulpy matrix of the fruit, were eaten by a girl aged 5 years. Symptoms came on within twenty minutes, beginning with dryness and burning of the throat, thirst, inability to swallow, nausea, and retching, but no vomiting; pain in the stomach, flushed face, giddiness, singing in the ears. Twitchings of the muscles of the forearm and leg were next observed, and delirium set in. When seen an hour and a half after taking the poison, the girl was lying on her back delirious, apparently unconscious, and in convulsions. She caught at imaginary objects in the air. The eyes were bright and glistening, the conjunctivæ red and injected, the pupils widely dilated. The delirium was of the busy kind, with fits of laughter, alternating with fits of crying and horror. The convulsions were general. The skin was dry, hot, and of a deep scarlet colour. Temperature was normal; the pulse small and rapid; respiration was interrupted, but not rapid. The treatment consisted in evacuation of the bowels by purgatives and enemata, and the administration of hourly doses of five grains each of potassium bromide and chloral-hydrate. The hypodermic injection of one-tenth of a grain of morphia hydrochlorate was subsequently followed by quiet sleep and speedy recovery. From six ounces of the urine voided five hours after eating the seeds, a substance was obtained by Stas's process which dilated the pupil when applied to the eye of a man, causing dilatation of the pupil for many hours.

5. *Johnson on Anæsthetics.*—Dr. J. G. Johnson of New York (*Bull. of the Medico-Legal Soc. of New York*, vol. iv, Nos. 7 and 8, May, Dec. 1881), has discussed anæsthetics from a medico-legal point of view, and sums up as follows. 1. Anæsthetics do stimulate the sexual functions; the ano-genital region is the last to give up its sensitiveness. A charge made by a female under the influence of an anæsthetic should be received as the testimony of an insane person is. They cannot be rejected, but the *corpus delicti aliunde* rule should be insisted on. Dentists, or surgeons, who do not protect themselves by having a third person present, do not merit much sympathy. 2. Death from administration of chloroform after a felonious assault, unless the wounding were an inevitably fatal one, reduces the crime of the prisoner from murder to a felonious assault. 3. The surgeon has no right to use chloroform to detect a crime against the will of the criminal. 4. The army surgeon has a right to use chloroform to detect malingerers. 5. The medical expert, notwithstanding he is sent by order of Court, has no right to administer an anæsthetic, against the wish of the plaintiff, in a personal damage suit, to detect fraud. 6. Gross violations of the well-known rules of administering anæsthetics, life being lost thereby, will subject the violator to a trial on a charge of manslaughter. 7. A surgeon, allowing an untrained medical student to administer anæsthetics, and life being thereby lost, will himself be subjected to a suit for damages. What he does through his agent he does himself. 8. The physician who administers an anæsthetic should attend to that part of the work, and nothing else. He should have carefully examined the heart and lungs beforehand. He should have the patient in the reclining position, with his clothes loose, so as not to interfere with respiration; should have his rat-tooth forceps, nitrite of amyl and ammonia, and know their uses, and when to use them and artificial respiration. 9. In operations on the ano-genital region and the avulsion of the toe-nail, complete loss of sensation in these parts should never be allowed; and no operation on these parts, at all, should be done under an anæsthetic, unless by the approval of a full consultation of men who have a knowledge of the dangers. 10. Chloroform cannot be administered to persons who are asleep, without awakening him, by a person who is not an expert. Experts themselves, with the utmost care, fail, more often than they succeed, in chloroforming adults in their sleep.

6. *Williams and Waters on Strychnine.*—Messrs. Greville Williams and Waters (*Proceedings of Royal Soc.*, No. xxxii, p. 162) have discovered an antidote for strychnine in the organic base, first discovered by the former among the products of the destructive distillation of cinchonine with caustic potash, and to which he has assigned the name beta-lutidine. They find that this base causes a distinct increase in the tonicity of both cardiac and voluntary muscular tissue, also a retardation in the rate of the heart's beat, and that it arrests the inhibitory power of the vagus; that, by its action upon the nerve-cells of the spinal cord, it, in the first place, lengthens the time of reflex action, and then arrests that function; finally, that it is successfully antagonistic to strychnine in its action upon the spinal cord.

7. *Cleaver and Williams on Aconite.*—Messrs. Cleaver and W. Williams (*Chemists' Jour.*, 1882, p. 146) have investigated the alkaloid or alkaloids of *Aconitum paniculatum*, a species of aconite now much used in this country instead of, or in conjunction with, *A. Napellus*, the official aconite. They found that the flowers yielded 0.9, the leaves 0.1, and the extract made from the plant 0.3 per cent. of non-crystalline alkaloid, having a very bitter taste, but totally free from aconitine. The authors point out the advisability of using definite and reliable preparations; and that, since *A. paniculatum* contains no aconitine, and Japanese roots contain twice as much of a potent alkaloid, japaconitine, as the roots of *A. Napellus* do of aconitine, very serious errors may arise. It is curious to note that *A.*

paniculatum was at one time the officinal plant of the London and Dublin pharmacopœias, but was soon abandoned.

8. *Hofmann and Schutze on Death from Burning.*—The burning of the Ring Theatre at Vienna gave rise to many important medico-legal investigations respecting the sex and identity of charred corpses, of which Ed. Hofmann and Schultze give a description (*Wiener Med. Blätter*, 1881, No. 50, p. 1538). In determining the sex in cases where the external genitals were completely destroyed, the chief point relied upon was the absence or presence of the uterus and ovaries. In ascertaining the approximate age, external appearances were quite unreliable. The union of the epiphysis with the diaphysis of the humerus, which first takes place at twenty-four years of age; the ossification of the ribs, and more especially the ossification of the larynx, which generally begins between the thirtieth and thirty-fifth year, and is completed in the fortieth year, were found to be the best and most easily ascertained data. In women, the state of the ovaries was important; these being smooth in girls and young women, cicatrised in older women. The hair of the head and beard was generally black, and had to be washed before its natural colour could be ascertained. The cornea was generally milky and turbid, as if boiled. Often the obsolescence of the cornea gave to the iris a deceptive blue appearance. The teeth, though calcined and crumbled, were, nevertheless, serviceable in determining the age. The nails, too, in some cases, served for identification. In a large number of cases the blood was of a florid colour; and this may have been due to the inhalation of carbonic oxide gas.

THOS. STEVENSON, M.D.

9. *Du Moulin on the Physiological and Therapeutic Action of Phosphorus.*—M. du Moulin (*Revue de Thérap.*, Feb. 1, 1882) presented to the Brussels Academy of Medicine, on the part of M. Lesseliers, of the Clinic of the University of Ghent, the report of a case of poisoning by phosphorus observed in his hospital practice. The case, M. Du Moulin remarks, raises and illustrates several important points in the toxicology of phosphorus. 1. The symptomatology of poisoning by phosphorus is sufficiently advanced to allow the diagnosis of this kind of poisoning, notwithstanding the absence of the poisonous agent, and the obstinate denial of the patient. 2. The poisoning having been effected by a relatively small quantity of phosphorus, it has been possible to follow its regular evolution and to observe the successive invasion of all the organs—the stomach, liver, heart, muscles, blood-vessels, mouth, and kidneys. 3. It has especially afforded the opportunity of verifying the condition of the various secretions, and of pointing out in the latter changes which were by no means expected. Thus the urine became not only icteric, but at the same time alkaline and albuminous, and the earthy salts had almost completely disappeared from it. Its density was 1006, the urea was reduced from 15 to 25 per thousand, the normal amount, and to 3.3 per thousand. At the same time, the urine contained leucine and tyrosine. The fæces were discoloured (icteric) and mixed with a little blood; the sweat was alkaline; the vomit (a mixture of gastric juice and mucus) was alkaline; on the other hand the saliva was strongly acid; the lacrymal secretion remained alkaline. 4. Essence of turpentine, administered on different occasions, was rejected each time immediately after its ingestion. Gargles of chlorate of potash having been prescribed to soothe the inflammation of the mouth, the patient swallowed by inadvertence the greater part of the solution. M. Du Moulin, finding after this a sensible improvement in the condition of his patient, and also remembering that M. Huseman had recommended chlorate of potash in phosphorus poisoning, continued the administration of that agent. A few days afterwards, the patient was completely well. Without wishing to affirm that the cure should be attributed to the action of the chlorate of potash, M. Du Moulin is of opinion that in cases of this kind it would be well to employ this medicine, either alone or conjointly with essence of turpentine, according as the patient is or is not able to tolerate the administration of the latter drug.

10. *Rules for the Guidance of Experts in Cases of Suspected Poisoning.*—The following is an abstract of a circular of the Italian Minister of Grace and Justice, published in the *Rivista Sperimentale di Freniatria e di Med. Legale*, 1881. The Commission constituted by Royal Decree of 11th April 1880, for the purpose of studying the questions related to evidence in alleged crimes of poisoning, and to the special characteristics of cadaveric poisons, suggested certain general rules which should be observed by the judges and the experts, in order that the most important elementary facts, from which the proofs of the crime may be inferred, may not be lost. It is of the greatest importance, as soon as the first suspicions of poisoning have arisen, that, with all possible care and diligence, all the facts relating to the progress and the morbid symptoms preceding death should be collected; for whilst the memory of these is fresh it is not difficult to succeed in this, but at a later period it is unusual to do so, unless incompletely and by means of ambiguous depositions, in consequence of which the judge is deprived of a very important criterion as to the true character of the case. It is his duty to recommend, with the utmost insistance, the adoption of such measures as may secure the better selection of medical experts to be entrusted with the first operations, with such guarantees of capability for the performance of their special work, as cannot be possessed, and indeed are but indistinctly possessed in general, by those who have attained to the doctorate in medicine and surgery. This is an error which may result in irremediable loss of proof of the actual crime, and may open the way to the most unjust conclusions. 1. The inspection, and the section of the body, should be made as soon as possible after death. Not only should the cavities of the thorax, abdomen, and cranium, but also the vertebral canal, be opened. The conditions of each viscus and tissue, and of the blood, ought to be diligently examined, with the aid of the microscope when necessary. 2. For the preservation of the viscera and other substances to be subjected to chemical examination, well closed glass vessels, new, with ground stoppers, and not before used for any purpose whatever, and washed out with a mixture of water and alcohol, are to be employed. 3. To the viscera and other substances placed in these vessels, there should be added as much alcohol as will cover the solids. For liquids to be preserved, half a volume in excess of that for such liquids will suffice, provided the alcohol be of the strength of 95 to 98 per cent.; but if the strength be lower, about one-fourth additional will be necessary. 4. Only pure alcohol, previously redistilled, is to be employed. 5. In every case, not less than a half litre of the alcohol employed is to be preserved separately in one of the glass vessels described, for the controlling chemical researches. 6.

In another of the glass vessels, the entire brain and spinal cord are to be preserved. 7. In a third, both lungs, the heart, spleen, kidneys, and the bladder (after being emptied of its contents), and as much blood as possible from the heart and great vessels, are to be placed. In this vessel may also be preserved the matters which have escaped into the thoracic cavity. 8. The urine is to be preserved separately. 9. After application of proper ligatures, the stomach and the small intestines are to be removed, successively opened, and their contents put into a vessel, in which the stomach and intestine themselves shall also be placed; not, however, until after having instituted on each a diligent examination, in order to discover whether there are any pathological alterations; this intimation will also apply to every other viscus and organ. In this vessel the matters gathered from the abdominal cavity, when there are such, may be preserved. 10. The large intestine with its contents to be treated, and to be preserved in a vessel; and in case of the exhumation of a body, the excrement or deposit that may be found on the bottom of the coffin, may be placed in the same vessel. 11. In another vessel, the entire liver is to be preserved. 12. A good portion of the muscles detached from the body, so as to avoid as far as possible including any of the adipose tissue of the skin, will be placed in a vessel. 13. In special instances of the presence of traces of blisters, sores, fistulous sinuses or wounds, which may have been the possible passages of entrance of poison, a portion of the tissue of the part should be removed, and preserved in another vessel. Particular parts injured in the buccal cavity and the pharynx, may indicate the nature of the suspected poison. 14. There should, in case of exhumation, be preserved in another vessel a sample of the earth surrounding the coffin. 15. The dissecting expert is recommended to use the precaution of making deep and numerous incisions into the parenchymatous viscera and the muscles, before placing them in the vessels, so that the alcohol may readily penetrate them as far as possible.

11. *Vogel on Examination of Spermatic Stains.*—The following method, recommended by Vogel, is described in No. 12 of the *Wiener Med. Blätter*, 1882. The stain is softened with water, and, in the moist condition, is taken off with a knife, avoiding, as much as possible, the removal of any of the tissue on which it lies. A few small hairs are unimportant, however, as they are readily dissolved from the scrapings on the object-glass or slide with a drop of concentrated sulphuric acid. After two minutes, one or two drops of tincture of iodine are added, the whole stirred carefully with a glass rod, and covered with a large cover-glass, which, if the dark-brown mass be too opaque, may be pressed down a little, unless it be intended to transfer smaller portions to other slides. The spermatozoa are stained distinctly brown, and are visible under the microscope in their whole *contour;* but it is not possible to keep the staining in longer than twenty-four hours, unless the sulphuric acid be washed out, when the preparation is soon spoiled. Alcohol at once decolorises the spermatozoa, showing the staining to be only superficial.

12. *Guttmann on the Actions of Different Preparations of Aspidospermine.*—In the *Archiv für Experiment. Pathol. und Pharmak.*, Band xiii, p. 451, this author publishes the results of his experiments on animals with aspidospermine, which he finds to be a poison affecting the respiratory and circulatory apparatus. In cold-blooded animals, paralysis of respiration, in warm-blooded ones, of the heart, is the first to take place. The action upon the heart is independent of the pneumogastric, and is due to paralysis of the ganglia. The only appearance of an effect upon the central nervous system in the case of the frog is paralysis.

13. *Baader on Poisoning by Stramonium.*—In the *Correspond. fur Schweiz. Aerzte*, Oct. 1881, this author describes the cases of three boys who had been poisoned by eating the seeds of the datura stramonium, a mistake which does not often occur, as these seeds are very bitter. The symptoms were very like those of poisoning by atropia. One boy talked confusedly, and sat down in a corner, so that he was put to bed under the impression that he had been drinking wine. Jactitation now began; he had spasms of both arms and legs, and talked to himself whenever he believed himself unobserved, laughed and clutched at the sheet continuously; consciousness was perfect, and he answered all questions correctly; the pulse was frequent, the respiration laboured; the pupils were dilated, scarcely reacting to light, and the field of vision was dimmed; he had a sense of tickling in the throat, and there was hyperæmia of the mucous membrane. Castor-oil and black coffee were administered, and the phenomena had disappeared on the following morning. Another of the boys exhibited more alarming symptoms. The agitation was severe; consciousness was lost; there were gnashing of the teeth and whimpering, with inability to swallow fluids; the skin was cold; the pulse could not be counted; respiration was irregular; he had a red rash, best marked over the head and neck, and involuntary urination. Within twenty minutes, two doses, each of a centigramme of morphia, were injected. Black coffee and rum were given internally. The next day all the symptoms had disappeared, except the dilated pupils and the dysphagia, which remained a little longer.

14. *Langerfeldt on Poisoning by the Seeds of the Castor-Oil Shrub.*—Dr. Otto Langerfeldt (*Berliner Klin. Woch.*, 1882, No. 1, and *Med. Chir. Rund.*) was called to the son of an innkeeper early one morning, and found that the boy had come home from school on the previous day, complaining of headache and nausea; he vomited repeatedly, and said that he believed his illness to be from partaking of some speckled seeds, and that several of his comrades had similar symptoms. The boy's face was pale, cold, and cyanosed; he lay on his back with his legs drawn up and groaned loudly; the eyeballs had receded; the countenance was anxious; the skin clammy; the temperature was sub-normal; the pulse 110, very weak, and hardly perceptible. He did not like to answer questions, but was perfectly conscious, and complained of burning in the throat, and intense pain in the epigastrium. The abdomen was retracted, the pharynx swollen and hyperæmic, the tongue dry and covered with yellow fur. Treatment, directed principally to combat the collapse and alarming symptoms, consisted in the regular administration of port wine, strong coffee, ice and cold milk, and was soon followed by remission of the worst symptoms; but the complaints of pain became louder, the vomiting continued, and there was some blood mixed with the yellow mucus voided. A hypodermic injection of morphia succeeded in allaying the thirst and pain; but constipation was obstinate. Although the progress was slow, complete recovery took place, and the boy was able to go to school on the sixth day. The seeds which were found in the

boy's pockets turned out to be those of the *Rianus comminus*, and possessed a bitter, but not unpleasant taste. To the boy's statement, 'that he had eaten ten to fifteen beans', the author does not attach any importance; and he believes that it is probable the active principle is a volatile, fatty acid, which is obtained in the saponification of the oil, and which is slightly yellow, without smell, and of a very disagreeable, adherent taste. The seeds, however, must have a much more acute action than the mild oil, a fresh preparation of which, according to the pharmacologist, Hager, is much more drastic than when it has been boiled with water, and so deprived of its sharp action. [It would have been desirable to know where the boys obtained these deleterious seeds, so as to guard against similar mistakes.—*Rep.*]

F. WILLIAM ELSNER.

REVIEWS.

A Manual of Physiology. By E. D. MAPOTHER, M.D., Professor of Physiology in the Royal College of Surgeons of Ireland. Third edition, by J. F. KNOTT, Fellow and Demonstrator of Anatomy, R.C.S.I. Dublin, 1882.

MAPOTHER'S physiology, having an established reputation in the Dublin schools, has been entrusted to Mr. J. F. Knott for re-editing, and now appears as a handy volume, not so overgrown as might have been expected. The book is chiefly occupied with physiological physics and physiological chemistry of the newest kind; and there is a little of the modern and extremely exact kind of histology introduced here and there, the histological part being by no means comprehensive. The work is a prodigiously learned one, and bristles with references to the names (within brackets) of a whole army of investigators, who appear to be almost always of foreign extraction. No short book on physiology was ever half so learned as Mr. Knott's edition *looks*,—if we may apply to it the words that were once used of a judge in his wig. It appears that 'articular hæmorrhages in the dog have been produced by stimulation of the sigmoid gyrus (Albertoni;)' again that 'a diminution of albuminoids in contracting muscle has been observed (Ranke, Danilewsky); but the subject requires further research, as the sources of error are very numerous. With regard to *creatine*, opinions are at variance. Sarakow has observed an increase of creatinine during tetanus, and believes that creatine is converted during the contraction of muscle. But later and more extended researches have shown that it is only creatin that is normally present in muscle (Nawrocki, Voit, Basler), with the exception, perhaps, of the heart.' That is a sample of the large type; but there is even more learning, more conflict of opinion, more names within brackets, in the numerous pages of small type with which the text is diversified. Perhaps there are students who like that sort of thing; but we very much doubt if this remarkable work will satisfy the intellectual needs of any youthful student of physiology, who does not happen to be at the same time under the guidance of a sensible and judicious teacher.

The book is obviously a *précis* of larger and more original handbooks; and, if any student cares to commit to memory its enumerations of facts, tabular and other, and its summings up of opinion, he may reproduce them on the day of examination, with the well-grounded confidence that his examiners will not find in them anything that is antiquated or erroneous. Mr. Knott acknowledges his indebtedness to an English and a French physiological text-book, to a German encyclopædic work, and to an histological atlas and text, all of them well known as the productions of men who have worked and thought much, or read widely, on physiology and histology. His own manual does not profess to have issued from the laboratory so much as from the writing-table, and its literary merits (including methodical order and typography) are not small. We are further reassured that the editor has in nearly all cases verified the references to original papers. His researches among the endless volumes of foreign physiological literature have certainly led him to a pretty strong critical opinion (expressed in the preface), about 'the dross or worthless chips which too often encumber the elaborations of the German workshops,' and about the fleeting nature of those discoveries 'whose sand-supported foundations must soon be sapped by the rapidly advancing tide of scientific knowledge, and whose millimetrical periods of existence are usually meted out by the times which separate the publication of the consecutive numbers of Pflüger's *Archiv*.' That kind of Olympian criticism—we seem to have heard it somewhere before—comes doubtless with a good grace from the gentlemen of England (or Ireland) who sit at home at ease. The Olympian stand-point (or sitting posture) has, however, one disadvantage. Dross, and worthless ships, and sand-supported foundations are inevitable in scientific progress; but it is not so much the literary craftsman as the working physiologist who is likely to know them when he sees them. There are a number of useful diagrams, in the chapters on the physiology of the muscular and nervous systems; they look like diagrams that we have seen somewhere before, but, as they are not credited to any other author, they have probably been drawn up by Mr. Knott himself. The histological woodcuts are about thirty in number, all of them familiar acquaintances, but not all of them acknowledged.

Handbuch der Therapie von Ziemssene. 2te Band 1ste Theil. Balneotherapie. Von Professor O. LEICHTENSTERN. Leipzig, 1880.

THIS book created quite a sensation on its appearance eighteen months ago, and was violently attacked in the meeting of German Balneologists at Berlin. Like Braun (whose book is known in England through Dr. H. Weber's excellent edition), the author makes a violent and not undeserved attack on many of the faiths and traditions, and extravagant professions of bath-doctors. No doubt he carries his strictures too far; and, when he insists much on the mere empiricism which guides the use of mineral waters, he might have remembered that there is still much empiricism in the ordinary practice of medicine, although we are making progress in the investigation of the action of remedies, and endeavour to prescribe them rationally; that is, according to the latest pathological views, which often, unfortunately, are merely the expression of the passing opinion of the day.

The most useful part of the book is Dr. Leichtenstern's analysis of the principles of balneology. He considers first the physiological and therapeutical action of baths; next that of the internal use of

water; and then examines the operation of the most important groups of mineral waters. The book throughout is written from a somewhat German point of view, and there is scarcely allusion to French balneological literature or to French baths. The author, therefore, does not allude to their favourite arsenical waters; and we are glad to remark, that he laughs at lithia, and iodine, and bromine springs, let alone barium, rubidium, and other substances, which figure as important elements in the analysis of particular waters. Dr. Leichtenstern will have no homœopathy in balneological any more than in ordinary practice.

He attributes far more importance to artificial waters than most authors do, having nothing of the old faith in nature's chemistry. The weakest portion of the book is the third one, in which the list of baths is scanty, and in which no full analysis is given of any of the waters. In it we observe that 'Bath, on the west coast of England,' being an earthy water, figures among the purely indifferent ones—while the far more popular, equally indifferent one, Buxton, is omitted. Leuk, with the same analysis, does duty under the two heads of earthy and of indifferent waters. Of this, however, the author is aware. As it was amusing to observe in the midst of Braun's scepticism his faith in his own waters of Rehme, so it is curious to notice the prominence given by Dr. Leichtenstern to the pleasant acidulated springs of the Rhine valley, while few others, and we think no French table-waters, are mentioned.

This book is undoubtedly a valuable one for bath-doctors. It should make them inquire after the reason of the faith which is in them, and should contribute to their rational employment of their waters.

The profession in general should be glad to have this clear exposition of the principles of balneology, although they will not find it much of a guide to the practical selection of waters. It is not one that will prove attractive to patients who may take it up, for its incredulity would rather act as a dissuasive against the use of any natural mineral waters.

J. Macpherson, M.D.

Etude sur les Mouvements des Yeux. Par E. Landolt. Reprint from *Archives D'Opthal.* Nov., Dec. 1881. Paris 1882.

While refraction and accommodation have received their full share of consideration from opthalmologists, at any rate since the appearance of Donders' classical work, the same can scarcely be predicated of the movements of the eyes. These, taken apart, form a chapter in ophthalmology, which has scarcely as yet received the attention which it deserves. With the exception of the great work of Alfred von Gräffe on the subject, little has been written on it, especially in recent times. Dr. Landolt, in a very ably written monograph, calls attention to this want, and endeavours, not without success, to supply it. In his *Etude sur les Mouvements des Yeux*, he brings a good deal of ingenious observation and of sound deduction to bear on the whole subject of the associated movements of the eyes, both in health and in disease.

In dealing with a subject so difficult and complicated as the above, he naturally is careful to define his terms. Thus, at the outset he insists on the necessity of clearly distinguishing between the 'field of vision' and the 'field of fixation'. The former is the measure of indirect vision, the latter of direct. In estimating the field of vision the observed eye is fixed; in estimating the field of fixation it is allowed the full play which its muscular apparatus is capable of giving. He describes various methods for determining the limits of this latter field, of which it will be sufficient to notice the one which he terms the 'objective mensuration.' It consists in observing the position on the cornea of the reflex of a flame travelling round the arc of the perimeter. So long as the eye follows it, and vision is direct, the flame will always fall on the same portion of cornea. So soon as its position varies, the limit of ocular movement will have been reached in that direction. The amount can be read off on the instrument in degrees or fractions of a degree; when it differs for each eye, the difference will be the expression of the difference in the associated movements of the two.

The size of the field of fixation depends on various factors, such, for instance, as the size and shape of the globe in relation to its orbit. In several cases in which the states of refraction, as in the observations of Donders and Schurwman, appeared to bear a definite relation to the size of the field of fixation, the truth was probably that the ocular globe was in certain conditions, such as hypernetropia or emmetropia, smaller than in others, *e.g.* myopia, and therefore more free to move round its own centre. Again, the insertion and power of the recti muscles exercise an important influence. Hence sometimes the fields of fixation are found to be limited in hypermetropic eyes and increased in myopic. These propositions are illustrated by several cases, in which also the important part played by the condition of the cranial development is well shown.

Any departure from health as regards the associated movements of the eyes, is at once seen when the binocular field of fixation has been determined. This should exactly coincide with that portion of the monocular fields of fixation, which, when they are superposed by their centres, is common to both eyes. This doctrine is applied to the pathological conditions which affect certain groups of ocular muscles. In that insufficiency of the internal recti occasionally met with, in which the fields of fixation are very limited, and in which there is a marked tendency to divergent strabismus, Dr. Landolt sees a remnant of atavism. He considers this condition as dependent on insufficient development of the eye, and from the point of view of ocular evolution he finds it a not uninteresting fact.

Perhaps the most instructive portion of Dr. Landolt's monograph is that which deals with the therapeutics of squint. He remarks fairly enough that the main object of treatment should be not merely to remove deformity, but to re-establish binocular vision. He endeavours to attain this, not by the exclusive use of one method of treatment but of several, either singly or combined. His first effort is directed to the producing of diplopia, and from this he works backwards, as it were, until, in many of his cases, which, at the outset, were most unpromising, he has succeeded in obtaining binocular vision. He makes large use of prisms and of the stereoscope, attaching particular importance to the latter instrument. In unilateral strabismus, he combines tenotomy of one muscle with advancement of its antagonist. In alternating strabismus, he divides the operation over both eyes, but allows an interval of some months to elapse between each operation. The value of systematic exercises with the stereoscope after division of the muscles is especially in-

sisted on. Even in cases of marked anisometropia, an effort should be made to procure partial binocular vision, for, as Dr. Landolt well remarks, weak or imperfectly corrected vision in one eye is better than absolute cæcity. A sensation of relief is produced, even though vision be not absolutely much improved. Moreover, retinal images, very much differing in size and clearness, can be united stereoscopically. An earnest and persevering attempt should, therefore, always be made to do this, if only to prevent those relapses which are so common after operations for strabismus.

In conclusion, we may say that this little *brochure*, on a confessedly difficult subject, which has perhaps not received all the attention it deserves, will well repay perusal. It is written in a strictly scientific spirit, but is not without those graces of style and that clearness of diction with which readers of Dr. Landolt's other works are already familiar. The value of the present monograph is much increased by a series of well chosen clinical examples, and by a number of excellently engraved diagrams of normal and pathological fields of vision and of fixation.

LITTON FORBES.

Syphilis des Verriers: Hygiène et Prophylaxie par la Visite Sanitaire. Par le Dr. GUINAND. Paris: Masson. 1881.

IT is well known that syphilis has been propagated in France among those engaged in glass-blowing through the medium of the blow-pipe which, in the French manufactories, is passed in rapid succession from the mouth of one workman to that of another during the various stages of the process. In this *brochure*, M. Guinand of Rive-de-Gier, one of the most important centres of the trade, gives an account of the several instances in which epidemics of syphilis have originated in contagion from workmen with syphilitic lesions of the mouth, by means of the blow-pipe, and adds particulars of other cases observed by himself of late years while acting as medical attendant in the district. For the prevention of such accidents—of which the results are not confined to the men themselves, as the disease is frequently spread by them to their wives and children—the author insists that the only effective measure consists in a periodical and strict examination of the workmen, and the suspension, for a sufficient period, of all those found to be suffering from syphilis in a communicable form. A regular monthly inspection, M. Guinand thinks, would be sufficient, provided all new-comers were also examined on their arrival. Such a system of inspection he has carried out at the manufactory of Richarme frères at Rive-de-Gier for some years with the best results; and the author's chief object in writing on this subject, is to urge the importance of extending the examination to all the other manufactories in the district. It was suggested some years ago that the use of a separate mouthpiece for each workman would answer every purpose as regards protection; and a contrivance of this kind, proposed and invented by M. Chassagny, came into partial use among the glass-blowers. It was found, however, that the changing of the tube interfered with the rapidity of the work; the result being that the workmen soon became careless, and neglected to make use of it.

ARTHUR COOPER.

Antiseptic Surgery: Its Principles, Practice, History, and Results. By W. WATSON CHEYNE, M.B., F.R.C.S. London: Smith, Elder, and Co. 1882.

MR. WATSON CHEYNE has presented surgeons with a complete text-book on the antiseptic method of treating wounds. The work is appropriately dedicated to Professor Lister, whose teaching and practice it may with confidence be taken to represent. Portions of the work have formed the essays to which the following prizes were awarded, viz.: Syme's Surgical Fellowship in the University of Edinburgh, in 1877; the Boylston Prize and Gold Medal, from the Harvard University, in 1880; and the Jacksonian Prize of the Royal College of of Surgeons of England, in 1881. Several chapters of the work are devoted to the various theoretical and practical aspects of fermentation, spontaneous generation, and the very interesting subject of micro-organisms in their relation to septic and aseptic wounds. Here are detailed many experiments by the author on micrococci, showing that these bodies exist in acute abscesses, but in chronic ones they are no longer active; and also that they develop under carbolic dressings, not sufficiently charged with the acid. Plates are appended, showing diagrammatically these bodies. The materials employed in Listerism, their mode of preparation, and the manner in which they should be correctly used, are fully described and illustrated. Such chapters are of great importance to those who have never had an opportunity of witnessing strict antiseptic surgery. Mr. Cheyne does not confine himself merely to a description of strict Listerian method, but enumerates many modifications of the same, which may be utilised when complete appliances are not at hand.

The history of antiseptic surgery, as traced in these pages, is both interesting and exhaustive. With regard to the results of aseptic surgery, Mr. Lister's own cases of psoas abscesses, arthrotomy, and compound fractures, are drawn out in the form of tables. For purposes of comparison, statistics of eminent surgeons, Listerian and otherwise, are introduced.

The volume is bulky, but the matter it contains has been well digested, and the book can be confidently recommended as an authoritative reference.

THOMAS F. CHAVASSE.

A Treatise on the Diseases of Infancy and Childhood. By J. LEWIS SMITH, M.D. Fifth Edition. London: H. K. Lewis. 1881.

IN many respects this work is an admirable one. The descriptions are for the most part graphic and accurate, and constitute a most readable account of children's diseases. But wholly unqualified praise cannot be accorded, since the book is very far from being a complete treatise on the subject. As examples of the omissions, we may select ringworm and favus; no mention is made of tinea or pediculi; and, among cutaneous affections, molluscum, herpes, and pemphigus are not referred to. Such important subjects as the differential diagnosis of acute tuberculosis and typhoid fever, the relations of syphilis to rickets, and tubercular peritonitis, are passed over in very few words. The nature of the diet in scarlet-fever, especially if there be any renal complication, and the method of feeding in pertussis, are not even mentioned, and illustrate the absence of such practical points as a 'student or physician in daily practice' would

reasonably expect to find in a book designedly prepared for him. Many chapters in the work are deserving of the highest praise, but the full value is undoubtedly marred by the numerous and important omissions.

Tables for Measuring the Colour-Sense Quantitatively. By Bruno Kolbe. St. Petersburg. Kranz, 1881.

These tables consist of vertically-disposed bands of white, red, green, rose-colour, black, violet, orange, blue, and yellow. Each takes its rise above in a horizontally disposed band of neutral grey. To this the different colours are added in gradually increasing degree, by a process of fine stippling, till at the lower end of each band each colour is in a state of complete saturation. Figures placed by the side mark in one-tenths the various degrees of saturation.

The whole table is placed in a case from which it is to be drawn out slowly. The subject of examination is tested with the various colours, one by one, beginning at the least saturated extremity (0.1 of the colour). If he perceive a colour mixed with neutral grey, in the proportion of 1 to 9, his colour-sense is normal. His colour-sense is feeble if he require a colour to be half-saturated before he can distinguish it. Any deficiency more pronounced than this is colour-blindness. To avoid naming the colour, he is asked to indicate it by the corresponding skein of coloured wool. It is intended that the examination should be made at the distance of 1 mètre. Examinations made by means of this apparatus indicate that it is likely to be of great use, where we want to determine the degree of the colour-sense as quickly as possible. W. A. Brailey, M.D.

What to do in Cases of Poisoning. By William Murrell, M.D., Lecturer on Materia Medica and Therapeutics at the Westminster Hospital. Second edition. Lewis. 1882.

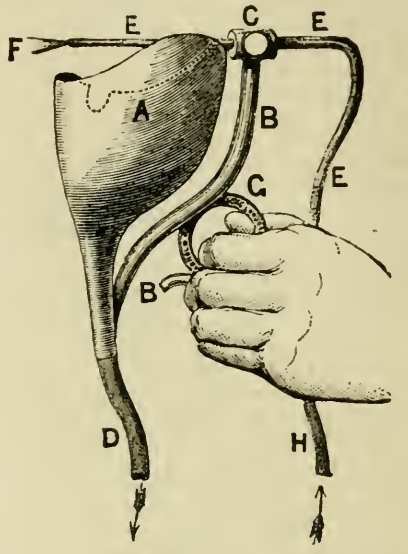
This, the second edition, of Dr. Murrell's excellent little pocket manual should be in the hands, or rather, in the pocket, of every medical practitioner. It measures only 4⅜ by 2¾ ins., and is a ¼ in. in thickness; yet within this small space are contained ninety-six pages replete with valuable information. Under the head of each poison—and they are arranged alphabetically—clear, concise, and accurate information is given as to what is to be done in any case of poisoning. What is particularly valuable is the instruction given as to the administration of physiological antidotes by hypodermic injection; and, in this respect, Dr. Murrell's work is unique.

The new edition is enriched by the addition of statements as to the fatal dose of each poison, when known. The work is brought up to date; and we observe that it contains a page as to the treatment to be adopted in the case of so novel a poison as resorcin. Thos. Stevenson, M.D.

NEW INVENTIONS.

THE SIMPLEX EAR IRRIGATOR.

This instrument is the outcome of an endeavour to obviate something of the difficulty, inconvenience, and discomfort which attend the operation of cleansing the auditory meatus by the ordinary syringe or its modifications. The instrument may be described as follows. There is a reservoir, A, in shape like a quarter of a sphere, whose flattened surface is adapted to the side of the neck below the ear, so that the lobule of the ear projects over the edge of the reservoir; fluid issuing from the meatus thus flows into A, and escapes by the outlet pipe D, (to which India-rubber tubing is attached), into the jug or basin placed to receive it. From D springs the arm, B B, made of flexible metal, through the extremity, C, of which passes the tube, E E, and to



which are also attached the rings, G, by which the apparatus is held in position. The tube, E E, of uniform circumference throughout its length, slides through the head, C, of the arm, B B, and is fixed in position by a small set-screw; it can be entirely withdrawn from C for the purpose of being cleaned or packed. To E E E is attached the light India-rubber tube, H, connected at its other extremity with the syringe or siphon, by means of which a stream of water flows through E E into the meatus. In practice, the patient is seated at the corner of a table, on which stand the basin containing the water or other fluid which is to be injected into the meatus, and a jug or basin for collecting the effluent water; the extremity of the India-rubber tube D is passed into the latter; the tube H (from the 'simplex' syringe already standing in the basin of injecting fluid) is slipped on the tube E E, and a little of the fluid forced through it so as to fill E E, and thus prevent the unpleasant impingement of air which might otherwise occur when the instrument was first used. The tube E E is then almost withdrawn from C, and the instrument is held in its proper position against the side of the neck, the lobe of the ear falling over the flat side of the reservoir. The flexibility of the arm B B allows to C lateral or vertical motion adapted to any or either ear, so that the tube E E can be passed into the meatus as far as is necessary or convenient, and fixed by a turn of the set-screw. Then, the instrument being held in position by one hand, as in the figure, the other hand, working the simplex syringe attached to H, forces the fluid, in an easily regulated stream, into the meatus, whence it flows

into A, and thence, by the tube D, which is large enough to allow any fragment of cerumen to pass without obstructing the outflow, into the vessel placed to receive it. For the motive power needed, Dr. Shelly of Hertford, the inventor, usually employs an Arnold's simplex syringe; it is portable, and always ready for use; but a Higginson's or Kennedy's syringe, if at hand, can be made to answer the purpose quite well. If a perfectly continuous stream be desired, Messrs. Arnold supply a double action simplex syringe; or the same end may be attained by making the tube H draw the fluid by siphon action from a vessel placed on a shelf or bracket a the desired height above the patient's head. To be able to dispense with the cumbrous swathing of towels, and with the unpleasant wetting which they too often fail to prevent, with the basin which must be held beneath the ear, and with the perpetual withdrawing, refilling, reintroduction, and emptying of the ear-syringe in ordinary use, is no small advantage for an instrument which has the additional claims of being light, very portable, easily cleaned, always in order, and not expensive. Dr. Shelly has found it very efficient; it does not terrify young and sensitive children, and it can be used in almost any position of the patient, either in or out of bed. It requires only one pair of hands, and, indeed, with a little practice, patients can easily learn to use it for themselves.

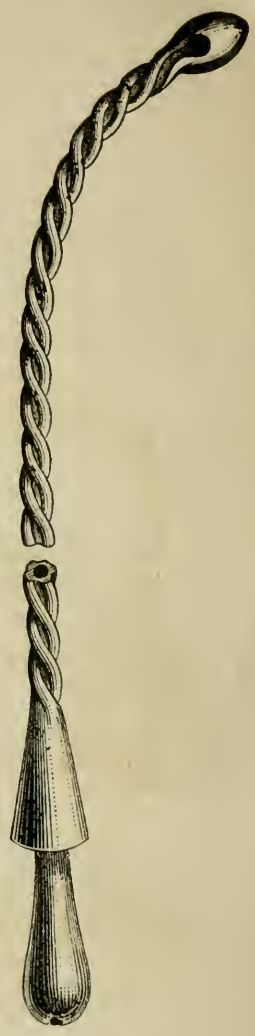
Dr. Shelly records his thanks for much valuable and courteous assistance to the makers, Messrs. Arnold and Sons of West Smithfield, who supply the instrument complete, with the requisite tubing.

A NEW METHOD OF URETHRAL IRRIGATION.

Mr. Walter Whitehead, Surgeon to the Manchester Royal Infirmary, states, in a communication to the *British Medical Journal* of April 8, that irrigation judiciously employed in suitable cases and at a proper stage of the complaint is a valuable adjunct to the treatment of gonorrhœa. In the first place, the prolonged stream of water effectually removes the inflammatory products of the disease, which obstinately and intimately adhere to the surface of the urethra, and protect the mucous membrane from the immediate influence of the remedies we endeavour to bring into action, either through the urine medicated by the administration of balsamic drugs, or by the more direct influence of antiblennorrhagic injections. The tenacity with which the secretions adhere has, no doubt, much to do with the difficulties encountered in the treatment of gonorrhœa. He points out that it must be remembered that the urethra in health is an elastic tube tolerant of reasonable dilatation; but when invaded by inflammatory changes, it is converted into a comparatively unyielding tube, intolerant of any force having a tendency to expand its calibre; consequently, irrigation, to be safe and successful, must be conducted on a principle consistent with the laws of hydrostatic pressure; and as it is prepared to use irrigation in a disease which involves conditions opposed to distension, the mode of irrigation, whilst insuring a continuous and copious stream of fluid, must be free from any undue tendency to stretch the walls of the urethra.

These conditions Mr. Whitehead has obtained by the following apparatus and mode of procedure.

He has had catheters made, some in vulcanite and other in soft India-rubber, by Messrs. J. and W. Wood of King Street, Manchester, with a deep spiral groove from tip to stem on their outer aspect. The catheter ends, as represented in the accompanying engraving, in a hollow bulb perforated with two large apertures directed backwards. The other extremity of the catheter is adapted for the ready attachment of India-rubber tubing. The groove in the catheter is made with a depth double the capacity of the central tube, so that the facilities for the return of injected fluids are greater than the requirements; and, in consequence, there is no excessive pressure on the urethra, the outflow being more than ample for the inlet of the irrigating fluid.

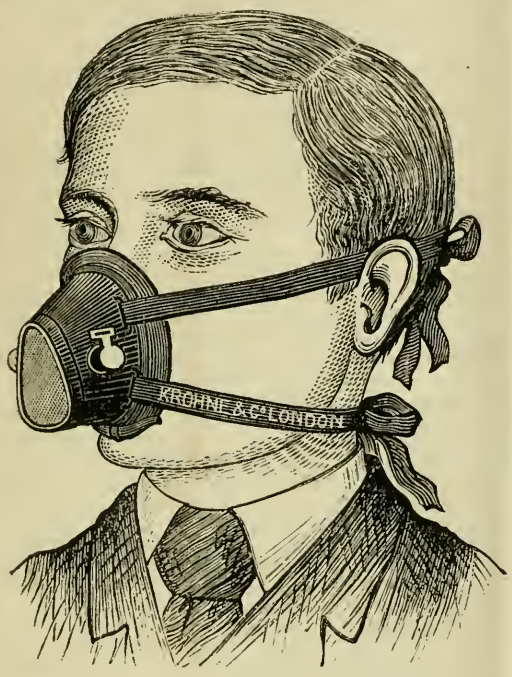


In using the irrigator, it is passed to different lengths of the urethra, after the manner of an ordinary catheter, according to the nature of the case, the aim being to get well behind the furthest limits of the diseased surface. The distance can be roughly estimated by the clinical features of the case, and by testing how far back the discharge can be pressed out of the urethra.

When introduced, a length of India-rubber tubing is attached to the irrigator; and the other end of the tube, passed through a leaden weight, is placed in a vessel containing the fluid to be used, and elevated above the body of the patient. The tube being made to act as a siphon, the strength of the stream can be regulated by the height of the vessel, and by this means a simple and complete control can be exercised over the force brought to bear upon the surface of the urethra and the feelings of the patient. The bulbous extremity of the catheter practically restricts the action of the fluid to the urethra in front, and prevents any of the injection from passing backwards into the bladder. The direction of the stream is also influenced by being diverted forwards within the hollow bulb. The irrigation of the urethra being regarded merely as a measure preliminary to treatment, it remains, after the mucous membrane has been thoroughly cleansed, to apply one or other of the various topical solutions we are in the habit of using; and this can be easily accomplished by connecting a syringe to the irrigator after the rubber tubing has been removed.

KROHNE AND SESEMANN'S ORO-NASAL RESPIRATOR.

This instrument has been made by Messrs. Krohne and Sesemann for Dr. Edward Blake, of Seymour Street, Hyde Park. In a description of it communicated to a medical contemporary, he writes a few words as to how to use medicated vapours to the best advantage. He says that probably their use is never sufficiently continuous. To use them for a few minutes two or three times a day is really trifling with these agents, potent enough when properly applied. They should be used by the hour together, nay, in severe cases even during the major portion of the day. This can readily be accomplished by means of the oro-nasal respirator figured below.



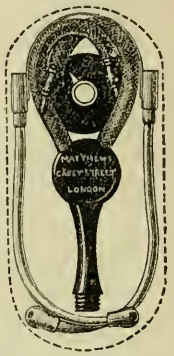
Messrs. Krohne and Sesemann's little apparatus covers both nose and mouth ; it can be worn with complete comfort whilst reading, writing, or working. It is small and portable, weighing only two ounces, and can be easily carried in the pocket ; its greatest advantage, however, is that it does not permit the patient to go on re-inhaling the same air, which is a very vital point.

The diseases which have, in Dr. Blake's experience, been the most benefited by inhalations are : Common coryza : camphor, ipecacuanha. Ozæna : phenol, thymol, chlorate of soda. Whooping-cough—first stage : ipecacuanha, belladonna, drosera, mephitis ; second stage : phenol, benzole. Croup : iodine, bromine. Diphtheria : phenol. Syphilitic sore-throats : iodoform (masked by Peruvian balsam), phenol, thymol. Spasm of glottis : sulphurous acid, stramonium vapour. Bronchiectasis and putrid bronchitis, pulmonary abscess, gangrene, and cancer : phenol, thymol, kreasote, terebene, oleum pini sylvestris, oleum pini Canadensis, oleum pini pumil. If any of the above prove particularly repugnant to the patient, the odour may be masked by means of balsam of Peru, oil of cloves, or of cinnamon. For hopeless coughs, chloroform may be added to any of the above. Asthma : amyl, eucalyptus, ipecacuanha, musk. Angina pectoris, epilepsy : amyl. Dr. Blake points out that to practical men many other drugs and many new applications of them will occur.

The importance of disinfecting the sputa of tubercular subjects is sufficiently shown by the researches of Koch, Villemin, of Tappeiner, Gerlach, and Creighton, bearing on the ready diffusion of tubercle.

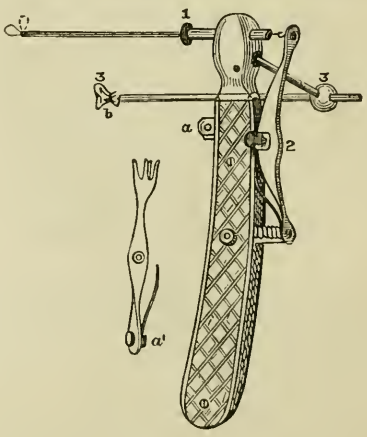
MATTHEWS' PORTABLE BINAURAL STETHOSCOPE.

In this elegantly constructed instrument, the makers have supplied a want which has always been felt by those who use the binaural instrument. It is, as ordinarily constructed, so large and cumbrous, that it is impossible to carry it about with comfort. The stethoscope here figured is about half the size of the ordinary binaural, and, when detached in three portions, the chest-piece being removable as well as the metal ear-tubes, it is packed away in a case 6 in. by 3 in. in dimensions. Another improvement is the substitution of the usual elastic band and hinge-joint between the two metal tubes by an upward spring joint, which exerts no undue pressure on the ears, and, indeed, renders its employment more comfortable than does the band. The conducting capabilities of the instrument are perfectly satisfactory, and have stood well comparative tests applied to it practically in cases of pulmonary and cardiac disease. Its price is 21s., and it is made by Messrs. Matthews, of Carey Street.



CZARDA'S SNARE WITH TORSION MECHANISM FOR REMOVAL OF AURAL POLYPI

Dr. G. Czarda, of Prague, holding that traction on a partially divided fibrous polypus is bad practice, particularly when the growth has its origin near some important part of the internal ear, has devised

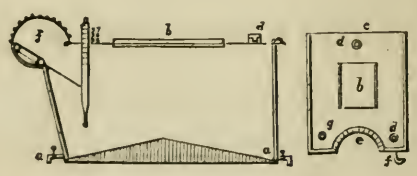


a new form of snare. This consists of the ordinary double tube, furnished at (1) with a small and slightly cogged button, by means of which, after the wire-loop has been tightened around the polypus by

depressing the lever at (2), this tube can be turned on its long axis, so as to exert torsion on the wire. With the use of this instrument, if the polypus be but partially divided, the twisted growth can be left *in situ*, the wire having been cut through, until it dies and is detached, iodoform or boracic acid being applied to its surface to render it aseptic. In addition to the usual double opening at the free extremity of the tube, Dr. Czarda's instrument has a double opening at the upper part of the tube. In some cases, particularly when the whole of the auditory passage is occupied by polypoid growths, it is desirable to tighten the loop in a direction from above downwards. The arrangement at (3) is intended to prevent injury to the internal ear during an operation on an unruly patent, the knob at (*b*) being applied to the skin below the ear, so as to keep the whole instrument steady.

WINCKEL'S NEW BATH FOR INFANTS.

DR. F. WINCKEL, of Dresden, describes in the *Centralblatt für Gynäkologie*, No. 1, 1882, a recently devised form of bath for the prolonged bathing of infants. This permits frequent addition and removal of water without disturbance of the little patient, so that cold and soiled water can be withdrawn and replaced by hot water, and the temperature of the bath be thus steadily maintained. The following, Dr. Winckel states, are the chief advantages of this bath, as shown by experience. Even very unruly children, when placed in this bath filled with warm water (97 deg. to 99 deg. Fahr.), remain there quietly and without complaint, taking their food and at times sleeping. New-born infants can be treated in a bath of this kind for about twenty-four hours continuously. As it is not necessary to add warm water less frequently than every half-hour, too much work is not thrown on the nurse.



The following are mentioned as the indications for prolonged bathing of new-born and suckling infants; 1. low vitality in infants between twenty-eight and thirty-six weeks of age; 2. great prostration after intense asphyxia resulting from loss of blood; 3. extensive cutaneous disease; 4. extreme emaciation from gastro-intestinal catarrh.

MISCELLANY.

PROFESSOR FREUND of Strasburg, who has been invited to fill the chair of Clinical Midwifery and Gynæcology held by the late Professor Spiegelberg, has, it is said, declined the offer on account of the defective condition of the gynæcological clinic.

NEW METHOD OF VACCINATION.—A man in Colfax, Illinois, sauntered into a drug-store, and mistaking the vaccine points on the counter for tooth-picks, picked his teeth with them and vaccinated himself, not entirely to his satisfaction.

THE FUNCTIONS OF A PHARMACOPŒIA.—A correspondent of the *Sanitary Engineer*, Oct. 15, p. 527, signing himself 'Pharmacist', expresses his opinion that the *Pharmacopœia*, in order to fulfil its purpose, should totally ignore the question of the relative merits of the various drugs and chemicals used in the treatment of diseases, and must not fail to enumerate and describe as many as possible of them, together with their simple preparations, fixing the strength, quality, and purity, and rendering their identification and distinction from other substances certain at the hands of properly trained pharmacists. He disagrees entirely with the idea that the *Pharmacopœia* should be either a depurator or a leader in therapeutics. It certainly would be a very great safeguard to the public, and would prevent considerable delay in the dispensing of prescriptions, if the prescribers would distinctly state the strength of new preparations on their prescriptions, and if there could be a publication once a year, in one or all of the leading medical journals, of the new preparations, their mode of preparation, and means of testing their purity. By the time that each new edition of the *Pharmacopœia* was published, those which had proved worthless, or fallen out of use, could be omitted.

RESEARCHES ON DEAF-MUTISM.—A discussion has lately taken place as to whether deaf-mutes taught to speak do so with the accent of their native district. M. Hémet affirmed this in the French Academy, from personal observation, and noted the interesting nature of the fact (as he thinks it) of dialectal accent being hereditary. Mr. Axon has supported this view by other recorded cases, one being in an old number of the *Philosophical Transactions*—a congenital deaf-mute, who, when a young man, gradually acquired hearing and speech after a second attack of fever, and spoke with Highland accent; another, the case of pupils in deaf and dumb schools in Spain, observed by Ticknor to speak with distinct provincial accents; a third that of a deaf-mute taught by Mr. Alley of Manchester, and found to speak with the Stafford dialect. On the other hand, M. Blanchard noted the harsh and disagreeable nature of deaf-mutes' speech, and thought their pronunciation had not the quality of accent. Professor Graham Bell says that in America this faulty utterance has been quite overcome; but, having examined the speech of at least 400 deaf-mutes, he has never remarked any such tendency as M. Hémet affirms. In a few cases dialectal pronunciations were heard, but it always turned out that such children could talk before they became deaf. Professor Bell (in *Nature*, March 2) criticises the cases adduced. In that of the young Highlander there was probably imitation of heard speech. A large proportion of deaf-mutes, it is now known, have been able to hear in infancy, and many to speak, so it was an erroneous assumption of Ticknor that the pupils could never have heard a human sound. The youth taught by Mr. Alley became deaf at a very early age, but it is not said what age. M. Hémet's *data* are also pronounced defective. M. Hémet, further, has said he is unable to conceive how, in losing the use of speech, deaf-mutes should retain the unconscious memory of accent. Mr. F. I. Faraday (*Nature*) finds this conceivable as due to automatic activity of brain-tissue, and he cites a case in which a man, becoming deaf in one ear through typhoid fever, often seemed to hear with that ear entire sentences which had not been spoken. Turning from this, we note an interesting recent observation by Dr. Boucheron with regard to several cases of deaf-mutism in children, with accompanying giddiness, difficulty in walking, nervous cries, etc., which were treated successfully by a new method. Supposing that those troubles might be due to a compression of the acoustic nerve and the nerves of the semi-circular canals (which are known to be closely concerned with bodily equilibrium), such compression being the result of vacuum existing in the cavity of the tympanum, so that the tympanic membrane is pressed in on the bones of the ear, Dr. Boucheron sought to destroy this vacuum by passing air into the cavity through the Eustachian tube. The children rapidly improved, being soon able to walk normally, regaining by degrees both hearing and speech, and improving generally in health and disposition.

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Gentlemen,—With pleasure I testify to the elegance and efficacy of your SUGAR-COATED PILLS, having used them extensively,—and many of the different kinds,—and found their action certain. In a very extensive midwifery practice, I have also found INGLUVIN of very great service for all the purposes it is intended to effect.—JAS. CARNEGIE GIBSON, L.R.C.P., L.R.C.S., L.M.

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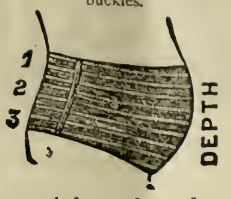

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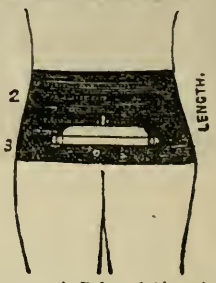

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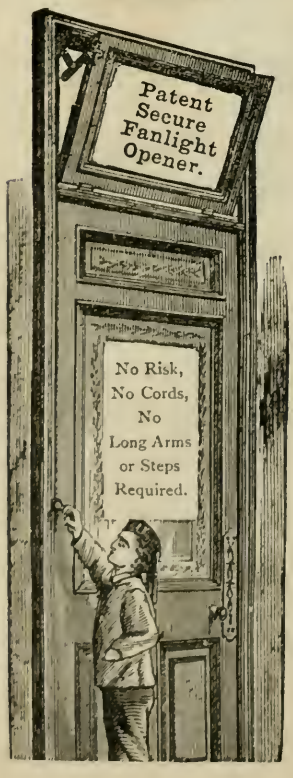

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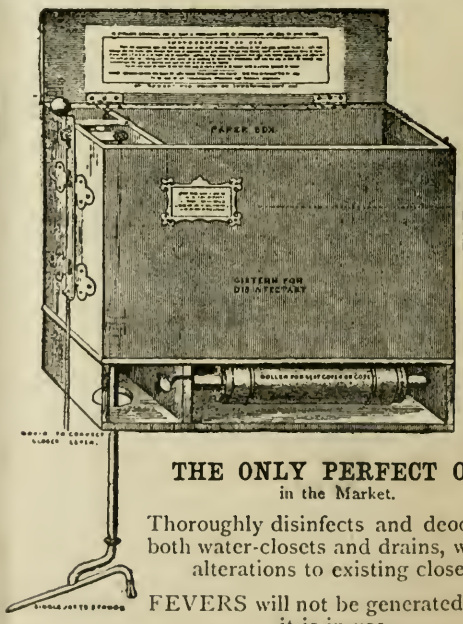

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TESTIMONIALS.

Thorpe Hamlet, Norwich, February 23rd, 1881.

SIR,—A short time since I was induced by the novelty of the title to send for a bottle of your Liebig's Extract of Meat and Malt Wine. I was perfectly acquainted with the value of the *Extractum Carnis*, and not quite a stranger to the invigorating and fortifying properties of Malt Wine, and, therefore, felt a natural curiosity to test them when combined. Men who work hard, as I do, not muscular hard work, but that which is quite as exhausting, viz., brain work, very often experience the need of, and have sometimes an almost irresistible craving for, a 'pick me up'; and very often the panacea for a time for lassitude, and that state of mind which renders work irksome, are alcoholic stimulants, the use of which must sooner or later end disastrously. The man who can furnish a remedy sure, certain, and harmless, for the lassitude which follows constant brain work, is a benefactor of his species, and may be said to have added many years of usefulness to the lives of useful men. Your extract, if a success, and when more generally known, will be used by all toilers of the mind

Yours faithfully, O. D. RAY.

LIEBIG'S EXTRACT OF MEAT AND MALT WINE (COLEMAN'S).

Queen's Crescent, Haverstock Hill, March 5th, 1881.

DEAR SIR,—Some time since, being greatly fatigued with over-work and long hours at business, my health (being naturally delicate) became very indifferent. I lost all energy, strength, and appetite, and was so weak as to be scarcely able to walk. As you are aware, I sent for a dozen of your Extract of Meat and Malt Wine, which, in a few days, pulled me up marvellously. Three or four glasses of it daily have quite altered and restored me to better health than ever, 'without the assistance of a doctor'. I am now giving it to my son twelve years of age, whom we have always thought consumptive, and from a puny ailing boy he seems to be fast growing into a strong healthy lad. Enclosed you have a cheque. Please send me two dozen of the 'Extract'. With thanks for your prompt attention to my last.

I am, Sir, yours truly, GEORGE A. TYLER.

LIEBIG'S EXTRACT OF MEAT AND MALT WINE (COLEMAN'S).

Grampound, February 25th, 1881.

Mrs. Coulson thanks Mr. Coleman for the book and stamps, and she has no doubt but that 'the tonic' is a good one. Mrs. C. encloses twelve stamps for basket.

LIEBIG'S EXTRACT OF MEAT AND MALT WINE (COLEMAN'S).

Vicarage, Kingsbridge, Devon, January 25th, 1881.

DEAR SIR,—We are ten miles from the railway, and have been snowed up, consequently the wine has only just arrived. I enclose a cheque for £2 11s. 6d. I like the wine, and will recommend it.

Mr. Coleman, Norwich. Yours faithfully, A. N. KINGSTON.

Pints, 27s. per dozen; Quarts, 50s. per dozen. Carriage paid to any Railway Station in Great Britain. Sample Bottle sent for 33 stamps.

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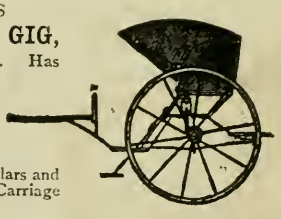

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Malted on improved scientific principles with pure fresh Malt Meal, as originally suggested by Liebig, thereby preserving all the most valuable portions of the Grain, and securing the resulting important advantages.

THIS Food consists of the most nutritious and finest-selected cereal grains and pulse, combined with the active constituents of pure Malt Meal, in such proportions as to render the mixture as nearly as possible chemically identical with the constituents of the human body itself. It is therefore valuable for every-day use, both in health and sickness, and for every condition of life; alike suited to the youngest child, the most robust adult, and the weakest invalid. Being **thoroughly cooked**, it is quickly and easily made; and being palatable, it is attractive, instead of, as so many foods are, repulsive. This New Food is unlike any other, having special qualities and virtues of its own, such as are possessed by nothing else. It is excellent for Breakfast, instead of bread-and-milk or bread-and-butter, for Dinner is delicious as Custard with Stewed Fruit or as Baked Pudding, and is of inestimable value for Supper. It also contains the greatest amount of nutriment in the smallest bulk, and in the most convenient and easily-digested form, and is invaluable in all cases of weak digestion, confirmed indigestion, and constipation, as its daily use regulates the natural functions of the body, and renders medicine for this purpose unnecessary.

Analytical Report by PROFESSOR ATTFIELD, F.R.S., &c., *Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain.*

'December 16, 1880.

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'(Signed) JOHN ATTFIELD.'

In Tins, at 1s., 2s., 5s., and 10s. each, of all Chemists and Grocers; Wholesale of

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THIS WATER IS CURATIVE IN—1, Diseases depending on a Lymphatic or Scrofulous constitution; 2, Asthma, Chronic Bronchitis, Whooping-Cough, Biliousness; 3, Loss of Appetite, Indigestion, Gastralgia, Constipation, Dyspepsia, Diseases of the Chest; 4, Anæmia, Chlorosis, Weakness of all kinds, and Muscular Debility; 5, St. Vitus' Dance, Neuralgia, Diabetes, Albuminuria, Chronic Gout and Rheumatism; 6, Cutaneous Diseases, etc., etc.; and in a case of Sea Sickness it has proved invaluable.

MODE OF USING IT.

Take it in preference at meals, either pure or mixed with water. Graduate the doses from half a glass to half a bottle per day.

Leave off using it in case of diarrhœa or stomach-ache setting in.

If necessary, mix it with milk, an infusion of lime, syrup, or orange peel, etc., etc.

ANALYSIS.

Chloride of Sodium	1.80
Chloride of Calcium	0.34
Nitrate of Calcium	3.03
Sulphate of Calcium	6.26
Sulphate of Potassium	0.39
Iron (Ferric Oxide)	0.35
Silica	0.60
Carbonate of Calcium	2.07
Carbonate of Magnesium	1.03
Organic matter and loss	0.80
Lithia	traces
Arsenic (AS^2 0.5) 0.5=Arseniate of Sodium	0.83
TOTAL	17.50

Copy of a Letter from John Ellerton, M.D., L.R.C.P.

'I have used the Eau St. Etienne, both in Hospital and Private Practice, and have been much pleased with the results obtained. In cases of skin disease it seems to act far better than the "Liquor Arsenicalis" so commonly prescribed by Medical Men, and I have almost entirely discarded the latter, preferring to use the Eau Court St. Etienne, as sold by Mr. E. Watteeu; it is also a most excellent tonic. When the Water becomes more thoroughly known to the Medical Profession it is certain to be extensively prescribed, as it is a very valuable addition to our list of remedies.'

'JOHN ELLERTON, M.D., L.R.C.P.'

From J. W. CRASTER, M.D.

'I have great pleasure in strongly recommending the St. Etienne Arsenical Water, as sold by M. Watteeu. It is an excellent remedy for skin affections, and in anæmia and debility resulting from exhausting diseases. It is sure, safe, and efficacious, and can be depended on as a good nervine tonic.' 'J. W. CRASTER, M.D.'

'Middlesborough, October 4th, 1881.'

From D. McCuaig, M.D., Consulting Physician, North Riding Infirmary, Yorkshire.

'I hereby certify that I have prescribed the Arsenical Water as sole by Mr. E. Watteeu, and have found it most efficacious, more especially in various cases of skin diseases, and I can therefore thoroughly recommend it as a most excellent mineral water. 'D. McCUAIG, M.D.

All Letters and Orders to be addressed to the Sole Agent for Great Britain—

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Apollinaris

EXTRACTS FROM RECENT HOSPITAL REPORTS.

CHARING CROSS HOSPITAL, W.C.; *July 9th*, 1880.

As regards the use of Apollinaris water in this Hospital, I can only give my own experience. The class of cases for which the water is specially adapted as a remedial agent, seldom makes its way into our Hospitals, and my experience has, consequently, been entirely limited to its use as a dietetic. I have long been accustomed to use milk and soda water as food and drink in many cases where digestion is feeble, and the stomach irritable, but practically, I have found that in private cases where the mixture was made at bedtime to last for use throughout the night until morning, it soon became unpalatable. This is much more likely to occur in the crowded wards of a Hospital than in a private room, and, accordingly, I set myself to find out by actual experiment the relative values of such a water as Apollinaris, and ordinary soda or other artificial water. The trials were carefully conducted, the circumstances being precisely similar; and it was found that with the Apollinaris Natural Mineral Water the milk remained far longer sweet and palatable than with the artificial compound. Moreover, from its constituents, the Apollinaris is likely to be more useful and beneficial in the cases I refer to, than ordinary soda water would be.

(Signed) ALEXANDER SILVER, M.A., M.D.,
Physician, &c., to Charing Cross Hospital.

GERMAN HOSPITAL, DALSTON; *July 28th*, 1880.

I have been instructed by the Committee of our Hospital to acknowledge the receipt of your letter addressed to them, respecting the result of the use of the Apollinaris water, with which your Company has been kind enough to supply our Hospital now already for some time.

Our Committee have referred the matter to our resident medical officers, and they have been assured by them that the Apollinaris water, as supplied by your Company, has been and is still in use in our wards, and that it is found an agreeable, refreshing, and useful drink for invalids and convalescents. (Signed) A. WALBAUM, D.D.,
Hon. Secretary.

(Translation.) 'The Apollinaris Natural Mineral Water was used during the summer of 1879 at the Royal and Imperial Hospital, "Wieden", in the Medical Department of Drs. Ritter von Eisenstein and Oettinger and in the Surgical Department of Professors Drs. Mosetig and Ritter von Moorhof and of Dr. Kumar.

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